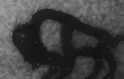


INDUSTRIAL DEVELOPMENT



**OPPORTUNITIES
FOR
STRATEGIC
ALLIANCES**

**INVESTMENT PROMOTION BRANCH
INDUSTRY, TRADE & TOURISM
410 - 155 CARLTON STREET
WINNIPEG, MANITOBA R3C 3H8
CANADA
TELEPHONE: (204) 945-2456
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AEROSPACE INDUSTRY

ADVANCED COMPOSITE STRUCTURES

1686 Dublin Avenue
Winnipeg, Manitoba
R3H 1A8

Telephone: (204) 694-1942

Facsimile: (204) 694-3524

J.E. Anning, President

Major products/services

- Composite repair and overhaul services
- Light manufacturing

Advanced Composite Structures provides repair and overhaul services for both metal and non-metal composite components to the aviation industry. In addition, A.C.S. has light manufacturing capabilities in the advanced composite field for solid laminates and sandwich construction.

Desired alliance with other firms

Rotary and fixed wing fixed base operations (FBO) and repair and overhaul service facilities.

Also, to provide build-to-print light manufacturing service to primary aircraft manufacturers and suppliers.

Company history

Advanced Composite Structures is a wholly Canadian-owned company that began operations in September 1988. Principals of the company include Mr. B.D. Anning with more than 8 years experience in the composite field, and Mr. J.E. Anning with up to 10 years administration and financial experience. A.C.S. has approximately 30 employees.

Technological expertise

B.D. Anning has been involved in the aviation industry for over 10 years specializing in the repair and overhaul technology of composite structures. Experience with various helicopter manufacturers, Bell; Aerospatiale; MBB; McDonnell Douglas, using advanced materials such as carbon fiber/graphite; Kevlar; Nomex; foam core.

Products developed

Developed repair design approvals for damage beyond the limitations of the Structural Repair Manuals.

Developed special bonding processes producing components close to net size.

Products in development

Temperature controlling monitors for composite repair layups to be utilized at both the fixed base operations level and the field repair level.

ANCAST INDUSTRIES LTD.

1350 Saskatchewan Avenue
Winnipeg, Manitoba
R3E 0L2

Telephone: (204) 786-7911

Facsimile: (204) 786-2548

C.R. McBain, P.Eng., President
R.G. McBain, P.Eng., V.P. & G.M.

Major products/services

Ancast Industries Ltd. is a leading manufacturer of ductile and grey iron castings for a wide range of industries. Casting weights from a few ounces to over 250 lbs. can be produced. Ancast has received the Ford Q-1 Quality Award.

- Grey & Ductile iron castings
- Heat Treatment
- Pattern Shop

Desired alliance with other firms

Firms who add value to iron castings, such as machine shops, would be valuable in the formation of alliances.

Alliances with companies (Canadian, American or other) who require grey or ductile iron castings in their operation.

Particularly interested in machine shops.

Company history

Ancast was formed in 1974 when the operation was purchased from Anthes Ltd. The facility was originally built in 1912 and has been operated as a foundry since its formation. The Company is owner operated and committed to employee involvement and continuous improvement.

- Approximately 100 employees
- Regular major capital expenditures to update equipment

Technological expertise

Ancast invests a substantial amount in research and development and has expanded its technology base to include all major state-of-the-art manufacturing processes.

Castings produced with modern high pressure green sand moulding equipment, induction melting furnaces. Ford Q-1 Quality rating, DND AQAP-4 Military Quality rating, other major quality ratings.

Products developed

Ancast is a custom manufacturer and produces a wide range of products to customer specifications.

- Weldment replacement with castings
- Our manufacturing engineers work with customers on design of new castings.

BRISTOL AEROSPACE LIMITED

Box 874, 660 Berry Street
Winnipeg, Manitoba
R3C 2S4

Telephone: (204) 775-8331

Facsimile: (204) 885-3195

T. Murch, President

Major products/services

- Military aircraft repair and overhaul (fixed and rotary wing)
- Defense rockets and missiles
- Wire strike protection systems for helicopters
- Research/high altitude rockets

Desired alliance with other firms

Bristol is looking for additional component manufacturing work from aeroengine and aerostructure sectors.

Bristol conversely is looking to develop a base of suppliers for its C5 Modernization Program.

Company history

Bristol Aerospace is western Canada's largest aerospace firm, incorporated in 1930. Bristol is now a wholly owned subsidiary of Rolls-Royce Industries Canada Inc.

Sales - \$140 million, approximately 40% export

Employees - approximately 1600
(150 engineers/technologists)

Export markets include U.S.A., Singapore, Malaysia, Thailand, Korea, Spain, Portugal, New Zealand, Great Britain, France and Norway.

Technological expertise

Manufacturing Quality standards to the Nato level AQAP-1.

Composites and numerous alloy experience, solid fuel rock propellant and military electronics.

Products developed

WSPA - Wire Strike Protection System for helicopters

CRV7 - rocket weapon system

Black Brant - high altitude research rockets

F5 - 2000 - aircraft modernization and life extension program

Various components for aeroengines

Various components for airframes

Products in development

Night vision instrumentation for avionics suites

**FRANKLIN
ENTERPRISES
LTD.**

43 Bunting Street
Winnipeg, Manitoba
R2X 2P5

Telephone: (204) 633-9838
Facsimile: (204) 633-4318

Zoli Gergely Sr., President

Major products/services

Products

Portable Pneumatic Material handling equipment, Positive Displacement Blowers for Transport Companies, Pneumatic Conveying Packages for bulk material handling.

Services

Precision Machining for aerospace and defense industries, contract manufacturing for commercial and industrial companies, tool and die, design and component manufacturing.

Desired alliance with other firms

As a prime or sub-contractor of services listed above for any customer from commercial to defense. As a source of equipment and products listed above to any interested firm.

Company history

Established in 1979 as a general machine shop. Specialized to aerospace and defense sub-contractor upon receipt of AQAP-4 and MIL-I-45208A certification in 1984. Maintain a broad and active customer base from commercial to defense companies. Established product lines in 1988 to take advantage of manufacturing expertise in these specific areas.

Technological expertise

All around capabilities from design to manufacture of components and systems for commercial customers: CNC Machining and total quality management for aerospace and defense companies. Computerized production and quality control techniques.

Products developed

See products listed.

Products in development

None.

WARDROP ENGINEERING INC.

400 - 386 Broadway
Winnipeg, Manitoba
R3C 4M8

Telephone: (204) 956-0980

Facsimile: (204) 957-5389

Mr. Douglas R. Grimes, P.Eng.
President

Mr. Lloyd R. McGinnis, P.Eng.
Chairman & CEO

Major products/services

The Company transfer knowledge from the researcher to the work place by applying advanced technology to the traditional fields of Civil, Structural, Electrical, Controls and Instrumentation, Chemical, Public Works, Hydrogeological, Environmental, and Transportation Engineering. The Firm is also active in the fields of Aerospace and Space Systems Engineering, Biomass, Nuclear Safety, Computer Modelling, and Robotics.

Desired alliance with other firms

Wardrop is receptive to both joint-venture and prime-subcontractor arrangements.

Company history

The Company was founded in 1955 and is a private Canadian company, actively engaged in projects across Canada and Internationally. The Firm provides engineering, management, environmental and planning services to government and industry, including high tech industries such as: aerospace and defence; heavy industries including nuclear, mining, steel, pulp and paper; and medium and light industries such as foundries, manufacturers and food processors.

- Current Markets:
Canada, Ghana, Nigeria, Pakistan,
Indonesia
- Annual Revenue:
\$15.0 - \$17.0 Million (CDN)
(export activities represent
20% of the firm's revenue)
- Employees:
220 (200 professional and technical)
- Computer facilities include a Local Area VAX Cluster (LAVC), consisting of a MicroVAX 3800 Computer, two MicroVAX II mini-computers, 60 IBM AT and four 386 Compatible MS-DOS-based personal computers, and a MacIntosh IIX and SE.

• Offices:

- Winnipeg, Manitoba (head office)
- Toronto, Ontario
- Thunder Bay, Ontario
- Edmonton, Alberta

Technological expertise

Aerospace and Space Engineering

Wardrop has many years' experience in developing systems engineering solutions pertaining to space programs, including the design and supply of flight hardware. The firm has worked with Canadian Government Agencies, NASA, the European Space Agency, and private Japanese space contractors. Space projects in which Wardrop staff has been involved are the International Space Station, Anik 'E' Satellite, Space Shuttle Remote Manipulator Systems, Starlab Space Telescope, and the Space Shuttle Module Interchange System. Experience includes the design, manufacture and test of equipment used for subsystem and system testing of the Space Station Mobile Servicing system, Space Shuttle Remote Manipulator, test rigs for aircraft, and test equipment for satellites.

Computer Modelling (Engineering Analysis)

Wardrop personnel utilize Computer Modelling and predictive analysis as powerful tools for cost-effective engineering. Applications include verification of design standards, design optimization, failure diagnosis, determining the viability of new designs, and expediting iterative build-and test cycles for prototype development. Various computer codes are utilized to evaluate designs, including software for ANSYS finite element analysis and ARIES ConceptStation.

Nuclear Engineering

Wardrop is a leading consultant in the nuclear industry in the areas of reactor safety, remote maintenance, nuclear waste management and fusion engineering. Reactor safety work has encompassed the development, verification and application of computer codes for analyzing the reliability of nuclear components, and the behavior of reactor systems under hypothetical accident conditions. The Company is also involved in the design and development of several remotely controlled custom tools for the remote maintenance and repair of nuclear reactors and fuel storage facilities. Waste management studies undertaken by Wardrop have included fuel and waste transportation flasks and systems, nuclear waste disposal centers, disposal vaults, and fuel and waste immobilization plants. In the merging technology of fusion power, Wardrop designed a Tritium Fill Station for the University of Rochester, and remote handling concepts for the NET fusion project in Germany.

Automation

Wardrop applies micro-electronic technology to benefit industry. Staff formulate the logic and develop the appropriate software to automate and control manufacturing processes. By applying technological advancements, Wardrop has engineered improvements in breweries, ore refineries, pulp and paper mills, food processing facilities, power plants, fuel oil distribution systems, chemical establishments, auto parts manufacturing plants, and water and wastewater treatment facilities.

Research and Development

Wardrop's R&D activities are currently centered around the industrial application of microwave technology, membrane separation technologies, fuel ethanol, and the development of a contactless test system to test printed circuit boards. The focus of our microwave technology R&D is on meat, poultry, and fish applications, to produce high-value products, and to convert waste into commercial products. Applied research in membrane separation technologies is centered around potato processing, cheese production, juice preparation, and meat industries. Our search for novel and inexpensive feedstocks for the production of ethanol continues to focus on ethanol from biomass, grain screenings, and food wastes.

AGRIBUSINESS INDUSTRY

ANCAST INDUSTRIES LTD.

1350 Saskatchewan Avenue
Winnipeg, Manitoba
R3E 0L2

Telephone: (204) 786-7911
Facsimile: (204) 786-2548

C.R. McBain, President

Major products/services

Ancast Industries Ltd. is a leading manufacturer of ductile and grey iron castings for a wide range of industries. Casting weights from a few ounces to over 300 lbs. can be produced. Ancast has received the Ford Q-1 Quality Award.

Desired alliance with other firms

Firms who add value to iron castings, such as machine shops, would be valuable in the formation of alliances.

Company history

Ancast was formed in 1974 when the operation was purchased from Anthes Ltd. The facility was originally built in 1912 and has been operated as a foundry since its formation. The Company is owner operated and committed to employee involvement and continuous improvement.

Technological expertise

Ancast invests a substantial amount in research and development and has expanded its technology base to include all major state-of-the-art manufacturing processes.

Products developed

Ancast is a custom manufacturer and produces a wide range of products to customer specifications.

BEHLEN INDUSTRIES

P.O. Box 1120
927 Douglas Street
Brandon, Manitoba
R7A 6A4

Telephone: (204) 728-1188

Facsimile: (204) 725-4932

Mr. R.A. (Russ) Edwards, President

Major products/services

Behlen Industries is a major manufacturer of Pre-Engineered steel buildings in both the Stress Skin and Rigid Frame Systems.

Behlen buildings are in use as Aircraft Hangers, Oil Field Buildings, Industrial and Commercial Buildings, Manufacturing Plants, Cold Storage Facilities and Grain Storage Systems.

Desired alliance with other firms

Behlen Industries, manufacturer of a wide range of building systems and products, wish to form an association as a supplier to contractors involved with the reconstruction of Kuwait project and other export projects.

Company history

Behlen Industries is a division of West-Man Culvert & Metal Co. Ltd., a wholly Canadian owned company incorporated in 1975.

Behlen Industries manufacturing facility covers 150,000 sq. ft. located on a 37 acre site in Brandon, Manitoba.

- * Sales: \$15 million
- * Employees: 100
- * Current markets are Canada and the United States

Technological expertise

Behlen Industries is a leader in the Stress Skin Building System with over 20 years of proven quality. Behlen maintains an experienced Engineering and Detailing Department very capable in Pre-Engineered and Custom Design built projects.

Our Quality Control Department ensures a consistent high quality for all products.

Products developed

Stress Skin Building
Rigid Frame Building
Curvets (Quonsets)
Grain Tanks
Metal Siding & Roof Panels
Roof Deck

Products in development

Behlen Industries is developing a system for small portable storage which is presently being brought into the market as the "Secure Storage" building.

**BONAR
INC. -
PLASTIC MOLDING
DIVISION**

410 Chrislind Street
Winnipeg, Manitoba
R3W 1A2

Telephone: (204) 222-2755
Facsimile: (204) 222-8305

Wayne Anderson, General Manager

Major products/services

- Containers for hazardous chemicals.
- Refuse containers for automated garbage pick up.
- Composters
- Chemicals Storage Tanks
- Agri Products
- Playground Components
- Bulk Material Handling Containers
- Custom Rotational Molded Products

Desired alliance with other firms

We are looking for distributors, dealers, etc. for our products in the midwest U.S.

Company history

Bonar Inc. - Plastic Molding Division is part of the Low & Bonar Group with our head office in Dundee, Scotland. We have six plants in North America and a number throughout Europe. Our Winnipeg plant has been in operation for over ten years.

Technological expertise

Our Payloader line of liquid containers are manufactured to CTC and DOT exemptions. Bonar Inc. - Plastic Molding Division manufacture these Payloaders under the Canadian Standards Association - Can3-Z299.3-85 Quality Assurance Program, and maintains registration of our program with the Quality Management Institute, who are the auditing division of C.S.A.

Products developed

- Hazardous Chemical Containers
- Composters
- Playground Components

Products in development

- Septic and Sewage Tanks

DOUGLAS MANUFACTURING INC.

Box 2520
Winkler, Manitoba
R6W 4C2

Telephone: (204) 325-4561
Facsimile: (204) 325-5380

Philipp R. Ens, President
Terry Elias, CEO

Major products/services

Finishing Mowers - 48", 60" & 72"
Rotary Cutters - 48", 60" & 72"
HD Tillers - 60", 72" & 82"
STD Tiller - 48" & 60"
Scraper Blades - Standard Fixed, side-shift
& tilt
Box Scrapers - 60", 72" & 84"
Dump Carts
Swath Roller
Landscape/Rock Rakes - 60", 72", 84" &
96"

Desired alliance with other firms

We are interested in firms who require their products to be manufactured during the summer months. Those products could be agriculturally related but not necessarily restricted to agriculture.

Company history

Douglas Manufacturing is a wholly owned subsidiary of Triple E Canada Ltd. The company has been in existence for approximately four years and was acquired by Triple E Canada Ltd. in October 1989. Since that time, Douglas has redesigned its product as well as extended its product line to complement its existing line of compact implements.

Technological expertise

Our manufacturing facility has the capability to produce some of the finest quality and finished product available in the compact implement field. We also produce products on an OEM basis outside the agricultural industry.

Products developed

We have developed the only rotary tiller in Canada with side-shift capability on both heavy duty and standard duty models. Our finishing mower is one of the sturdiest units available on the North American market today.

Products in development

We are currently beginning the process of designing our own flail mower, and double disc for the three-point hitch market as well as a new finishing mower to cover widths over ten feet.

KIPP KELLY

1 - 400 Dovercourt Drive
Winnipeg, Manitoba
R3Y 1L7

Telephone: (204) 489-5824

Facsimile: (204) 489-0972

Dirk Moolman, President
Brian Kelly, CEO

Major products/services

Manufacturer of specific gravity separators, air flotation stoners and rotary granulators.

Primary markets of our products are grain terminals, seed cleaning plants, flour and oat mills.

Secondary markets are wood processing plants, copper wire recycling plants, and the mining industry.

Desired alliance with other firms

Agents to distribute our products or joint ventures on the development of new models of products.

Company history

Established in 1913, Kipp Kelly has earned a worldwide reputation as a manufacturer of dependable, long lasting machinery with more than 4,000 units sold in over 70 countries, Kipp Kelly maintains a reputation for simplicity, economy and reliability.

Technological expertise

Separation of an extensive array of dry granular products with a library of document reports resulting from the numerous tests conducted in our fully equipped laboratory.

Products developed

Kipp Kelly is the only manufacturer of our three primary products in Canada. The Kipp Kelly rotary was designed by Kipp Kelly in early 1920 and has only one competitor worldwide.

Products in development

Development of higher capacity automated machines to meet the needs of our ever changing markets.

MACDON INDUSTRIES LTD.

680 Moray Street
Winnipeg, Manitoba
R3J 3S3

Telephone: (204) 885-5590

J. Allan MacDonald, President

Major products/services

- Pulltype and self-propelled grain and hay swathers
- Combine Headers
- Pick up Reels
- Manure Spreaders

Desired alliance with other firms

MacDon is looking to further diversify product line to develop or acquire additional hay and grain harvesting lines but not limited to this area. Although our experience is farm equipment, we would consider other product opportunities as well.

Company history

Company started 1949 as Killbery Industries and was purchased in 1971 by the MacDonald family and the company name changed to MacDon in 1975. We have specialized in designing and manufacturing grain swathers (windrowers) for large OEM companies. We now also sell hay windrowers through distributors and dealers under the MacDon label in Canada and the U.S.A. We currently employ 425 people.

Technological expertise

An engineering department of 25 people that have developed numerous innovative, unique grain and hay harvesting machines. We hold several patents and applications in this area.

Products developed

Pulltype Grain Swather; Self-propelled Grain Swather; Pulltype Hay Swathers (mower conditioners); Self-propelled hay swathers - auger tables, grass seed headers, multi-crop headers; combine headers; pick up reels.

Products in development

Not available

PORTAGE MANUFACTURING INC.

1000 - 6th Avenue
Portage la Prairie, Manitoba
R1N 0B4

Telephone: (204) 239-0160
Facsimile: (204) 857-9347

John C. Priest, President
Frank Pickersgill, Chairman

Major products/services

Assembly and painting of farm equipment:
Self-propelled swathers
Pull-type swathers
Auger headers
Round balers

Desired alliance with other firms

To manufacture medium to large industrial
or agricultural products on OEM
arrangement.

Produce finished product to customer
specifications.

Joint product development.

Company history

Portage Manufacturing Inc. was formed in 1991 from the acquisition of manufacturing facility formerly operated by Vicon of the Netherlands. New owners are former employees of Vicon. The company has retained expertise in the assembly of farm equipment especially swathers and balers.

Technological expertise

Specialize in low investment manufacture of arm equipment - especially swathers and balers. Concentrate on final paint and assembly. Customize products to industrial specifications.

Products developed

Swathers - self propelled and pull type.

Products in development

Swathers

VALMAR AIRFLO INC.

Box 100
Elie, Manitoba
R0H 0H0

Telephone: (204) 353-2782
Facsimile: (204) 353-2864

Charles Balmer, President
Gary Dunbar, Sales Manager

Major products/services

- Manufacturer of pneumatic granular herbicide and fertilizer applicators
- Manufacturer of mini-bulk handling systems (pesticides)

Desired alliance with other firms

- Dealers for existing product lines
- possible joint venture on development of new air seeding products

Company history

Established in 1977, Valmar Airflo Inc. has earned the reputation as the leader and innovator of pneumatic granular application equipment. Valmar products can be found throughout North America as well as overseas. Valmar products are known for their simplicity and affordability. The company currently employs 35 people.

Technological expertise

An R&D department that is actively involved in numerous projects. The R&D has developed several new products that has led to joint manufacturing and technology transfer. We hold many patents and applications in this area. We also produce many products on an OEM basis.

Products developed

- Granular herbicide applicators
- Granular fertilizer applicators
- Bulk handling systems (mini-bulk)
- Four wheel drive high clearance sprayers

Products in development

Not Available

VANSCO ELECTRONICS LTD.

1305 Clarence Avenue
Winnipeg, Manitoba
R3T 1T4

Telephone: (204) 452-6776
Facsimile: (204) 452-7156

Mr. Ed Van Humbeck, President

Major products/services

Agricultural, Vehicular, Industrial Controls and Other Electronics.

Vansco Electronics is primarily known as an Original Equipment Manufacturer (OEM) for the provision of electronics for the Agricultural Business Sector. Typical of these are:

- Air Seeder Monitors
- Blockage Modules
- Transmission Controllers
- 3-Point Hitch Controls
- Clutch Controls
- Magnetic Pickups

We also manufacture Computers and Networks, primarily for Industrial Controls, such as those made for the Convion Plant Growth Chambers.

Other products are made for large vehicles such as:

- Starter Cutouts
- Printed Circuit Board Instrument Panel Lights
- Flashers for large numbers of lights
- Damping Modules for Articulated Buses
- Coolant Level Indicators
- Bulb Outage Monitors

In the past two years, we have developed Instrumentation and Controls for the Hydro Electric Utilities. The major products are:

- The Powerline Monitor
- The Power Disturbance Recorder

Another recent product is a Dual-Tone Multi-Frequency Microphone with display for use in Hydro Vehicles.

Vansco also has developed instrumentation for the Telephone Industry with one major product being the Digital Communications Error Logger.

Vansco has a highly skilled Design Engineering group and a competent Production Facility with very tight Quality Assurance systems. We do custom development of components or complete products for others. We prefer to carry the design right through to production and have a new factory for the production of devices. We have three Computer-Aided Design facilities for both electronic and mechanical design. We design Printed Circuit Boards and can electronically transmit the data to manufacturers of those boards. We will stuff and assemble printed circuit boards and have recently added a Surface-Mount Line.

We have proven sub-contractors for the manufacture of cables, cases (both metal and plastic), and rack mount cabinets.

Desired alliance with other firms

VANSCO does not actively market its capabilities and products in the U.S.A. at this time. It would be interested in alliances with Farm Equipment Manufacturers, Vehicle Manufacturers, Hydro Electric and Telephone Utilities, or distributors of equipment to utilities, and any companies that require special electronics to be developed for use in their products.

Company history

Vansco was started in 1978 by Ed Van Humbeck as a one-man electronic engineering development company. It is totally owned by Ed and his wife Terry, who is the Controller for the company. By 1990, it had grown to 43 employees, of whom 14 are professional engineers and technologists. The company has experienced stable steady growth and in the last full fiscal year, August 1989 to July 1990 did \$4 million in business.

Technological expertise

We are experienced in both Analogue and Digital Instrumentation and Control Devices, Computers and Local Area Networks, Computer-Aided Design, stuffing and assembly of Printed Circuit Boards, both Thru-Hole and Surface Mount, Quality Assurance using Statistical process Control, and the design of Injection Molded Plastic Cases and Sheet Metal Cases.

Products developed

All of the products mentioned previously were designed and developed in-house. There have been many other products over the years, such as:

- pneumatic door controls
- furnace controls
- relay controls for aircraft de-icing systems
- satellite antenna controls

Products in development

Products currently under development that are contracted to others are:

- High-Pressure Fertilizer Sprayer
- Computer Controlled Video Display for advertising products and specials in large chain stores
- Car block heater remote control
- Remote Networked Hydroelectric Instrumentation
- Small (bolt-type) magnetic pick-up
- Self-Contained battery-powered air seeder monitor

ELECTRONICS INDUSTRY

HUGHES AIRCRAFT OF CANADA LIMITED

Acoustic Technology Division
260 Saulteaux Crescent
Winnipeg, Manitoba
R3J 3T2

Telephone: (204) 949-2400
Facsimile: (204) 889-1268

Ron Guimond, General Manager

Major products/services

- Noise Monitoring System
- Engineering Services
- Sound Retrieval System

The Acoustic Technology Division manufactures the Hughes Noise Monitoring System, an acoustic/vibration tester for quality control of any rotating and reciprocating mechanisms.

Hughes offers solutions to acoustic/vibration problems through its engineering services. Detailed systems studies, integration and installation of complete turn-key systems, and after-installation support are all available to the customer.

The Sound Retrieval System is a 3-D audio home hi-fi product. The component produces surround sound over a large listening area from conventionally recorded sources using only two speakers.

Desired alliance with other firms

The Acoustic Technology Division of Hughes welcomes the opportunity to work with other firms in developing, enhancing, or acquiring acoustic/vibration technologies.

Company history

U.S.-based Hughes Aircraft Company has engaged in the design, production and support of high-technology electronic systems for military, commercial, and scientific use for over a half-century. In 1985, Hughes became a wholly owned subsidiary of General Motors.

Hughes has made the commitment of having a flourishing presence in Canada after being awarded the Canadian Automated Air Traffic System (CAATS) contract. Established in April, 1990, the Acoustic Technology Division in Winnipeg, Manitoba is one of three divisions that make up the Canadian entity: **Hughes Aircraft of Canada Limited**. The Acoustic Technology Division plans on becoming a world leader in acoustic/vibration technology.

Technological expertise

Through technology transfer, the Acoustic Technology Division effectively has acquired over 20 years of advanced signal processing expertise. This experience is being specifically utilized in acoustic/vibration applications.

Products developed

Hughes has developed the Noise Monitoring System, an acoustic/vibration tester for quality control and monitoring of rotating and reciprocating mechanisms.

The Sound Retrieval System is a 3-D audio component that was developed for the home hi-fi market.

Products in development

Hughes is currently working on several products and technologies, specifically in the areas of active noise cancellation.

IRIS SYSTEMS INC.

123 Bannatyne Avenue
Winnipeg, Manitoba
R3B 0R3

Telephone: (204) 947-9064

Facsimile: (204) 943-3803

Michael Wiebe, President

Major products/services

- Automatic Meter Reading and Distribution Automation System

Iris Systems Inc. has designed, manufactured and, in conjunction with various utilities, is demonstrating the operational capabilities of System 2020™, Iris' automatic meter reading and distribution automation system.

The product is capable of supporting both monitoring and control applications.

Desired alliance with other firms

Iris System is a radio data telecommunications monitoring and control applications firm that has specialized in the electric utility industry. Other firms with interests in: monitoring and control applications in the gas and water utility sectors; or firms which manufacture electric utility distribution equipment such as fuses, sectionalizer, SCADA, etc.; or firms with applications that could benefit from a wireless communication system are invited to enquire about joint ventures or technology licensing.

Company history

Iris Systems Inc. is a wholly Canadian owned firm incorporated in August, 1987. Principals of the company include Mr. Michael Wiebe and Mr. Dennis Johnson. The principals have over 40 years of combined experience in the development of specialized monitoring and control systems using radio, telephone and satellite communication technologies. Iris has 25 employees including 1 Ph.D., 5 Masters and 11 Bachelor level backgrounds in engineering. The firm spends about \$2 million annually in R&D. Current markets include Canada and the U.S.

Technological expertise

The firm has 1 Ph.D., 5 Masters and 11 Bachelor level employees with over 100 published technical papers and several patents. The firm has significant strengths in radio, analog, digital, optical sensor, application software and design, manufacture and testing.

Products developed

The firm has developed System 2020TM as a low cost, high reliability radio telecommunications system for monitoring of utility meters and control of other field devices. The system has been successfully tested by utilities.

Products in development

A generic service interface module that would allow a manufacturer of various types of devices to customize an interface which would allow for the incorporation of a communication capability.

KRAUS INDUSTRIES LTD.

204 Day Street
Winnipeg, Manitoba
R2C 1A8

Telephone: (204) 224-1616
Facsimile: (204) 222-0846

Hans Kraus, President
Detlef Sachs, Manager of Operations

Major products/services

Self serve equipment:

Monitor 4 - 4 Hose controller/monitor
Mirco II - 12 Hose controller/monitor
Concept 5000 - 23 Hose P.O.S Terminal
Micon 100I - Automotive fuels register

Consumer products:

Custom engineering Electronic, Mechanical,
Wood: i.e. PE alarm system

Contract manufacturing Electronic,
Mechanical, Wood: i.e. Hughes Aircraft SRS
Audio System

Desired alliance with other firms

Kraus Industries Ltd. is interested in joint ventures with companies or individuals that require large and small volume production and/or research and development facilities to develop and build their products. Our customers include all major oil companies, a number of consumer oriented marketers and a number of OEMs. We also market our products directly in the USA and other countries.

Company history

Kraus Industries Ltd. is a 100 percent privately owned Canadian company, founded in 1970. We started in a 2,000 sq. ft. shop designing and manufacturing self serve equipment for the petroleum industry. We now do complete turnkey design and manufacturing from our 18,000 sq. ft. plant. We also manufacture and distribute our own products. To supplement our production capabilities, we also own a sheet metal shop (Spectrum Mfg.) with a shop area of 11,500 sq. ft. We are an international company based in Canada.

Technological expertise

RESEARCH AND DEVELOPMENT

We do all our engineering using state-of-the-art CAD stations, using such software CAD packages as Autocad and EE-Designer. We have extensive design experience in the following general categories.

ELECTRONIC

- single chip microcomputer
- field programmable logic chips
- UHF Radio Transmitters and Receivers
- Microprocessor Real Time Operating System Software
- Fault Tolerant digital communications
- Switch Mode Power Supplies
- All types of Digital and Analog Logic Design

MECHANICAL

- All types of enclosures and products ranging from sheet metal to explosion proof castings, and plastic injection molding.

PRODUCTION

- Manual and automated production equipment
- CSA and U.L. listed manufacturing facilities
- Canada Z299.4 QMI Registered Quality Control (Spectrum)
- Canada Z299.3 and ISO9003 Conformance (Kraus Ind.)
- Computerized test equipment
- Skilled long term production staff

Products developed

All products listed in Major Products/Services heading and:

- Automatic Temperature Compensation for motor fuels
- Unattended service station point of sale equipment
- Hospital zone security control for wandering patients

Products in development

Propane Fuel Dispenser
CS3000 Command Start
PE4000 Alarm System

MANITOBA REMOTE SENSING CENTRE

Survey & Mapping Branch,
Manitoba Natural Resources
1007 Century Street
Winnipeg, Manitoba
R3H 0W4

Telephone: (204) 945-6597

Facsimile: (204) 945-1365

Hartley T. Pokrant, Chief

Major products/services

The Manitoba Remote Sensing Centre (MRSC) conducts digital image processing of satellite data for resource studies, inventorying, and environmental monitoring. The Centre is also responsible for the operation of the Canadian World Crop Monitoring Program through which, daily satellite imagery is processed in order to determine crop quality, vigor, and yield forecasts. Other services and products include: consulting, research and development, education technology transfer, provision of satellite imagery, thematic land cover maps, joint venture opportunities, and rental of equipment.

Desired alliance with other firms

The MRSC is interested in the growth and fostering of remote sensing and related aerospace industries in Manitoba. In this regard, the Centre makes equipment available and provides joint venture opportunities for industry and academic institutions who wish to work in this field. Co-operative project work is undertaken and brokerage services are provided for those wishing linkages with the Centre for mutual benefit.

Company history

The MRSC was established in 1973 as a section of the Surveys & Mapping Branch. Initially, remote sensing activities were monitored and coordinated in order to keep the Province current in these activities. At the same time the Centre operated an aerial photography program and conducted resource mapping projects through photo interpretation methods. An assortment of analog interpretation equipment was acquired to meet these needs. In 1982, a Memorandum of Understanding was signed with the Canada Centre for Remote Sensing referred to as the Technology Enhancement program through which the Centre moved into advanced digital image processing. Since that time, the Centre has undertaken additional joint venture projects with CCRS including the World Crop Monitoring Program and the Radar Data Development Program.

Technological expertise

The MRSC has a highly skilled staff with expertise in digital image processing, consulting, project management, aerial photography, and most other types of specialized mapping aspects. Staff of the Centre bring over 90 years of operational production related experience to tasks at hand. Coupled with strong and varied educational backgrounds in geography, forestry, cartography, remote sensing and business, the staff of the Centre are able to combine all their past experience to assist in providing remote sensing solutions to many resource and environmental issues.

Products developed

Weekly NOAA satellite image composites for crop assessment purposes, color land use/land cover maps for Manitoba, forest cover maps of Canada, and a wide assortment of other thematic maps and inventories conducted over the years.

Products in development

Currently, the Centre is working in the field of Radar Data Development for purposes of assessing its use in land and resource inventories and to acquire and provide for the necessary expertise when Canada launches its own RADARSAT satellite. Ongoing research is conducted in advanced digital image processing with the Canada Centre for Remote Sensing.

**MONAC
ACOUSTIC
MONITORING
INTERNATIONAL
CORPORATION**

435 Ellice Avenue
Winnipeg, Manitoba
R3B 1Y6

Telephone: (204) 943-6797
Facsimile: (204) 949-9021

Louis P. Desmarais, C.A., LL.L., LL.B.
President
Dr. M. Nabil Bassim, P.Eng.
CEO

Major products/services

Monac produces computer systems designed to capture acoustic emission signals which are generated by structures (bridges/aircraft) under stress.

Monac provides structural integrity monitoring for major railroads like Canadian National and Burlington Northern as well as the aerospace industry (Canadair) and hydro electric utilities (Manitoba Hydro).

Desired alliance with other firms

- Aerospace industry/manufacturers
- Hydro electric utilities
- Railroad industries
- and all their respective suppliers

Company history

Monac Acoustic Monitoring International Corporation is a Canadian-based company established in 1987. Monac is a publicly traded high technology firm with R&D and manufacturing capabilities. Principal of the company, Dr. M.N. Bassim is credited with developing the patented approach on which the Monac technology is based. Monac has a staff of approximately 10 engineers and technologists.

Technological expertise

Dr. M. Nabil Bassim, Executive Vice President of Monac, has been a professor of the Faculty of Engineering, Department of Mechanical Engineering at the University of Manitoba since 1980.

Products developed

Monac has patented and developed a dynamic, on-line computer technology useful in evaluating the structural integrity of large structures such as bridges and aircraft. Other applications include hydro turbines and steam lines.

Products in development

Multi-channel, real-time systems which will allow flaw location testing as well as miniaturized stand-alone computers suitable for installation on aircraft.

SDS TECHNICAL DEVICES

471 College Avenue
P.O. Box 1998
Winnipeg, Manitoba
R3C 3R3

Telephone: (204) 589-7507
Facsimile: (204) 582-5964

Ron Tayler, President

Major products/services

Alarms, intercoms, industrial control systems, CCTV and CATV Systems. SDS can develop a product from concept stage. SDS also provides specialized services for repair of outdated products, e.g. welding machines, industrial controls, etc.

Desired alliance with other firms

Firms in need of industrial electronic expertise as part of their operation. Medical and physically challenged industries to provide enhanced services.

Company history

Incorporated in 1971 in Winnipeg. Providing

- all types of alarm systems
- repair and install intercoms and PA systems
- repair and install radar systems
- CCTV, CATV and similar video systems
- flashers
- computers

Technological expertise

- industrial electronics
- innovative solutions to customer's problems

Products developed

- Medical alert system
- Various custom design board
- Guardetec Alarm Systems

Products in development

- Alarm line module

WEST-CAN INSPECTION LIMITED

522 Dobbie Avenue
Winnipeg, Manitoba
R2K 1G4

Telephone: (204) 668-7327
Facsimile: (204) 668-7347

E. Wachal, President
Larry R. Russell, CEO

Major products/services

Non-Destructive Testing and analysis of materials for inherent and manufactured flaw detection. West-Can Inspection Limited provides mobile and laboratory Non-Destructive Testing services to engineered components and systems throughout industry for safety maintenance and manufacturing quality control.

Desired alliance with other firms

To provide our services to firms wishing to manufacture items with specific quality requirements entailing Non-Destructive Testing on a random basis. Where in it would not be economically viable for the manufacturer to provide the requirements in house.

Company history

WEST-CAN INSPECTION LIMITED is a private company, incorporated in 1969 in the Province of Manitoba. Since that time, we have expanded our operations to provide services in the provinces of Alberta, Saskatchewan and Northern Ontario.

Our Company provides Quality Assurance Auditing, Expediting and Inspection services in conjunction with a full line of Non-Destructive Testing Services for flaw detection and material evaluations. In addition, we specialize in research and development of Non-Destructive Testing techniques for the purpose of providing real time data for the prevention of service failures in systems and components. In recent years, we have expanded our capabilities into the area of formal education for Non-Destructive Testing technicians as well as presentations in a seminar format to general industry highlighting the uses and cost saving features of our industry.

Quality Assurance and Auditing - Designing and monitoring quality control systems and manuals for Manufacturing industries.

Over the years, we have provided our services to many clients in various industries. The varied industries we serve include Manufacturing, Electrical Generation, Transportation, Refineries, Steel Fabrications, Foundries, Aerospace and Nuclear Industries to name a few.

Our mobile lab facilities allow us to conduct our N.D.T. services on site including testing, interpretation and final reporting.

Our services are carried out by a fully qualified and licensed team of technicians whose practical experience ranges from six years to twenty-three years in their respective fields.

Technological expertise

Non-Destructive Examination with Non-Invasive Instrumentation providing data concerning structural integrity of material. Mr. Russell is an instructor in Non-Destructive Testing at Red River Community College. Past 10 years as well as a consultant designing inspection and testing systems for various specialized requirements.

Products developed

Specialized system for the radiography of dragline cables on site. Isotope Radiography of Rocket Propellant.

Products in development

Computer enhanced digitization of localized data from Radiographs.

ENVIRONMENTAL INDUSTRY

AIRQUEST RESOURCE SURVEYS LTD.

15 Trottier Bay
Winnipeg, Manitoba
R3T 3R3

Telephone: (204) 284-3103
Facsimile: (204) 453-8608

Mr. W. Sapielo, President

Major products/services

- Aerial Photography
- Digital Mapping
- Digital CADD
- Reprographics

Desired alliance with other firms

Possibly

Company history

Airquest was incorporated in November 1978. The company offers photogrammetric mapping services to clients in Manitoba, Saskatchewan and the province of Ontario.

Airquest has completed large, medium and small scale aerial photography contracts for various federal and provincial government agencies, as well as for major clients engaged in resource development and engineering studies.

The company has recently embarked on the emerging field of digital data collection and automated drafting, utilizing modified A-8 stereoplotters, a Data General MV7800 computer and a Wild TA-10 flatbed plotter.

Technological expertise

- Aerial Photography
- Digital Photogrammetric Mapping
- Digital CADD Drafting
- Aerial Reprographic Services

Products developed

- Aerial Photos
- Digital map files
- Aerial photographic products

Products in development

N/A

**ALPHAIR
VENTILATING
SYSTEMS
INC./ Ultra Span**

188 Midland Street
Winnipeg, Manitoba
R3E 2Y6

Telephone: (204) 775-8531
Facsimile: (204) 786-1546

Mr. F.W. Sellers, President
Mr. Ernie Reimer, CEO

Major products/services

Fan Division:

Fans and Blowers
- Custom and Standard

Centrifugal

- Industrial Radial bladed and radial tipped to 800°F, 9" dia to 104" dia to 120,00 CFM.
- Commercial and Industrial Airfoil and backward inclined non-overloading designs 12" to 132" dia to 1 million CFM, Class 4 Construction.

Axial:

- Adjustable pitch and fixed pitch Vaneaxial & Tubeaxial fans wall and roof exhausters.

Pressure Blowers
- to 80" S.P.

Stainless Steels, mild steels and other metals as required.

Ultra Span Division:

Specialized concrete extruding equipment for manufacturers of hollowcore slabs and walls

Desired alliance with other firms

Fan Division:

Agents for sale of fans on a Commission basis.

Ultra Span Division:

Contact with potential users.

Company history

- 1933 - Started as Alpha Fan Company
- 1960 - Purchased by Joy Manufacturing to build Alpha and Joy Fans in Canada.
- 1985 - Bought by local investors to continue manufacturing Alpha and Joy Fans.
- 1985 - Ultra Span Division established.

Alphair have a 50,000 sq. ft. manufacturing facility in Winnipeg with 85 employees. Fan Division markets through independent Sales Agents in Canada and the U.S.A. Ultra Span Division - Direct markets to concrete manufacturers world wide.

Technological expertise

Custom design capability using CAD Systems for design.

Products developed

Fan Division:

Controllable Pitch-in-Motion mechanisms for Axial Fans

Fan Division:

Heavy Duty Underground Mine Booster Fans. Light weight from ventilation rotors and fans.

Ultra Span Division:

Concrete hollow core slab extruder, cut-off saw and gantry crane.

Products in development

Fan Division:

Centrifugal/Axial Fans

Ultra Span Division:

Higher speed and multi use extruders.

BIOCLEAR TECHNOLOGY INC.

1218 Redonda Street
Winnipeg, Manitoba
R2C 2Z2

Telephone: (204) 222-6388
Facsimile: (204) 222-6563

Dr. Brian H. Topnik, President
David Romanow, Chief Executive Officer

Major products/services

- Modular sequencing batch reactors
- Package plant fabrications
- Turnkey installation capabilities

Bioclear Technology Inc. designs and fabricates modular sequencing batch reactor wastewater treatment systems and equipment. Package plant fabrications use steel, concrete and fibreglass. The company provides a turnkey installation capability for both industrial and municipal wastewater treatment requirements.

While the primary market addresses municipal wastewater treatment requirements, the emphasis of SBR technology application is shifting with recent applications to the snack food, pulp and paper, and dairy industries.

Desired alliance with other firms

Bioclear Technology Inc. is a biological treatment/technology company. Other firms could be of assistance in providing peripheral physical or physi-chemical equipment, e.g. pretreatment. sludge handling disinfection. Joint ventures enquiries arrangements.

Company history

Bioclear Technology Inc. is a wholly Canadian-owned company incorporated in August 1989. Principals of the Company include Dr. B. Topnik, P.Eng., of Topnik and Associates Ltd., with more than 20 years' environmental engineering consulting experience, and Mr. D. Romanow and Mr. J. Romanow of Roman Equipment Services (1973) Ltd., a general contracting firm, specializing in water and wastewater projects, with up to 30 years of experience. Bioclear has fabricating facilities with 13 employees.

- Sales: \$5 million
- R&D expenditures: \$200,000
- Employees: 20
 - Research and development: 2
 - Manufacturing: 13
 - Marketing: 5
- Current markets operating in:
 - Canada, United States, Europe

Technological expertise

Dr. B. Topnik, P.Eng., has been a Canadian developer of SBR technology since 1977. The Company produces state-of-the-art automatic controls. The PLC control has remote monitoring capacity. Patent is pending on the Bioclear Control Panel. The Company has more than 30 years of experience in wastewater system installation and operation.

Products developed

The design, fabrication, installation and operation of SBR wastewater treatment systems for all biologically treatable industrial wastewaters.

Products in development

Products in development reflect our main emphasis on industrial wastewater applications using SBR Technologies. Research and development is moving towards a complete automatic remote monitoring capability of SBR installations.

BIO-SOLUTIONS SYSTEMS LTD.

2728 Assiniboine Avenue
Winnipeg, Manitoba
R3J 0B1

Telephone: (204) 885-4652

Facsimile: (204) 888-2046

Douglas Eryou, CEO

Major products/services

Biofixation products using naturally occurring bacteria to bioremediate hydrocarbon contamination on water or in soil, sewage problems, remove heavy metals, clean up PCB's, drinking water contamination, etc.

Desired alliance with other firms

- Firms in Environmental service work
- Firms in storage tank installation work
- Firms in oil field work
- Firms in sewage consulting
- Firms in water quality consulting

Our firm would supply product and information on application of same.

Company history

Recently incorporated in Canada (federally) to commercialize newly developed bioremediation technology.

Technological expertise

- PhD Mech. Engineering
- PhD Civil Engineering (Environment)
- PhD Economics

Products developed

- Biofixation products

Products in development

- New generation of biofixations

BIOQUEST INTERNATIONAL INC.

3-2725 Pembina Highway
Winnipeg, Manitoba
R3T 2H5

Telephone: (204) 269-7264
Facsimile: (204) 269-6897

Martin Samoiloff, PhD
President and CEO

Major products/services

Services:

- Bioassessment to detect toxicity of water, soil, products and wastes.
- Indoor air quality evaluation
- Environmental biotechnology

BioQuest International is a world leader in providing clients with data on the toxicity of samples based on the biological effects that result from exposure to the sample.

Desired alliance with other firms

BioQuest International often serves as a sub-contractor to engineering firms involved in:

- the construction and operation of systems for environmental control
- decommissioning of industrial sites
- heating, ventilation and air conditioning systems

Company history

BioQuest was incorporated in 1984 as a spin-off of the research of Dr. Samoiloff at the University of Manitoba, and a demand, on a fee-for-service basis, for toxicity tests developed by Dr. Samoiloff.

BioQuest performs a range of biological tests that are mandated by local and federal regulations in the United States and Canada.

BioQuest is wholly Canadian-owned and employs 4 full-time staff.

Technological expertise

Dr. Martin Samoiloff is one of the world leaders in the development of bioassays as a tool in environmental assessment. His work has led to the development of toxicity-reduction evaluations in environmental monitoring and regulation.

The unique BioQuest Indoor Air Quality evaluation system, using passive sampling methods and toxicity assessment is becoming a significant tool in workplace safety and industrial hygiene.

Products developed

- Air sampling system for indoor air toxicity assessment
- the nematode bioassay, a rapid test for toxicity that quantitatively measures impacts on several endpoints

Products in development

- toxicity-reduction methodologies

**CAMCO
REDBOINE (1979)
LTD.**

1061 Notre Dame Avenue
Winnipeg, Manitoba
R3E 0N4

Telephone: (204) 774-6591
Facsimile: (204) 786-8548

R.A. (Bob) Campbell, P. Eng.
President

Major products/services

- Manufacture stationary dust collectors for Industry
- Manufacture customized air handling units
- Passive Solar Wall, make up air heating systems
- Industrial/hazardous exhaust air systems energy recovery
- Process natural gas/refrigeration heat recovery systems
- Welding smoke source capture systems
- C.N.C. steel fabrication
- Complete "design & build" capabilities

Desired alliance with other firms

- Supplier or Sub-Contract basis

Company history

Camco Redboine (1979) Ltd. is a wholly Canadian-owned company with the major shareholder being Mr. Bob Campbell, P.Eng. with over 20 years experience in the Engineering and Construction Industries.
Sales - \$7 million
Employees - 45
Current Markets - Western Canada - Ontario

Technological expertise

- Professional Mechanical Engineers
- Certified Engineering Technologists
- Steel fabricators - Millwrights
- Refrigeration/Gas Mechanics
- Electrical/Electronic Technologists

Products developed

Complete line of Industrial dust collectors to remove and hold particulate matter.

Products in development

Air Handling unit to remove and condense Hydrocarbon which are air born. Unit to capture light hydrocarbon gasses and condense gasses to reduce pollution and recover solvents, etc.

CONSOLIDATED ENVIRONMENTAL RESOURCES

415 Dawson Road
Winnipeg, Manitoba
R2J 0S8

Telephone: (204) 237-3310

Facsimile: (204) 231-1253

Maurice Marion, President
David Gural, C.E.O., V.P. Co. Contact

Major products/services

Solvent recovery, waste oil collection, lab services, sampling, analysis hazardous waste profiling, comprehensive waste generator services, seminars and training of transportation of dangerous goods, spill response and cleanup.

Desired alliance with other firms

- Environmental Engineering Firms
- Disposal Facilities
- Waste Generators

Company history

Established in Winnipeg in 1952 to collect used lubricants and re-refine them for us in TransCanada Airlines turboprops. We have updated our recycling division for the changing market and now all collected lubricants are used in the USA waste to energy program. We now offer solvent recovery thus allowing our customers an economical and environmental method of disposal. We operate in Ontario, Manitoba, Saskatchewan and North Dakota.

Products developed

- Solvent recycling systems
- Waste stream reduction

Products in development

- Oil Recycling

***CURLE
GEOGRAPHIC
SERVICES***

3456 Grant Avenue
Winnipeg, Manitoba
R3T 3P6

Telephone: (204) 896-1269
Facsimile:

Mr. G. Wayne Curle, President

Major products/services

Mapping, Aerial Phot Interpretation,
Mosaics, Cartographic Drafting, Remote
Sensing Applications

Company history

- Began operations in 1985
- Continued as a sole proprietorship
on a part-time basis

Technological expertise

Mr. G. Wayne Curle has had over 8 years
experience with Mapping Wetlands with
Duck Unlimited Canada.

Products developed

Specialty:

Wetland contour mapping, a process of
interpretation and compilation (Non-
photogrammetric)

***I.D.
SYSTEMS
LTD.***

905 Waverley Street
Winnipeg, Manitoba
R3T 5P4

Telephone: (204) 489-0333
Facsimile: (204) 453-9012

A. Brian Ransom
President & C.E.O.

Major products/services

- environmental impact assessments
- ecological investigations
- site analysis and assessments
- environmental compliance audits
- site decontamination and remediation
- hazardous waste management planning
- economic, engineering and technical evaluations of waste management programs
- feasibility/sustainability studies for economic development proposals
- environmental education and communication
- environmental evaluation of corporate policies and practices
- corporate environmental communication
- project management for environmental investigations

Desired alliance with other firms

- reprocessing of waste by-products from agricultural food processing

Company history

I.D. Systems Ltd., along with I.D. Engineering Canada Inc. (IDE) and I.D. Engineering Company Limited (IDEL of Edmonton), civil engineering consultants; Independent Test-Lab Limited (ITL), a geotechnical and material testing company; Penner and Keeler Partners Ltd., structural engineers; and McGowan Design Group, a landscape architecture urban planning company, are wholly-owned companies in the I.D. Group Inc., which is headquartered in Winnipeg. The I.D. Group Inc. hold 50 percent ownership in Teshmont Consultants, an HVDC and EHV.AC power transmission company; and Linnet Graphics International Inc., a geographic information systems company; all headquartered in Winnipeg.

IDS and its affiliates (exclusive of Teshmont and Linnet) currently employ over 200 individuals in professional, technical and support categories.

Technological expertise

A. Brian Ransom, B.S.Ag., M.Sc., President and Chief Executive Officer, has over 30 years of experience in environmental research and management spanning activities from field biologist to Minister of Mines, Natural Resources and Environment. Brian also served as Minister of Finance and chairman of Treasury Board during his eight years as a member of the Legislative Assembly of Manitoba. He has a thorough understanding of the legislative and regulatory process of government. Most recently, Brian was Chairman of the Manitoba Hydro-Electric Board and of the Manitoba Energy Authority.

**KÉTAS
CANADA
INC./
SOL-RF
ENERGY
SYSTEMS
INC.**

Box 2550
Winnipeg, Manitoba
R3C 4B3

Telephone: (204) 237-5840
Facsimile: (204) 237-6384

Ernest J. Klein, P.Eng., President/CEO

Major products/services

Consultants/Analysts/R&D in the Applied Sciences:

- aerospace/terrestrial systems and peripherals in telecommunications, telemetry/telecommand, tracking and associated energy systems;
- electromagnetic radiation concentrator systems for photon bombardment applications in hazardous waste destruction, water purification, hydrogen generation, etc. and power generation in terrestrial and space applications;
- environmental impact analyses.

Desired alliance with other firms

- joint venture participation in design, prototyping and production of components and/or subsystems:
 - Otto Bock Orthopaedics Ltd. (Wpg)
 - Linear Systems (Wpg)
 - Bristol Aerospace (Wpg)
 - Boeing (Wpg)
 - Bomin Solar (Germany) (communication initiated)
 - Swedsteam (Sweden) (communication initiated)
 - Astropower Inc. (Newark, Delaware)
 - Siemens Solar GmbH (Bergisch Gladbach, Germany)
 - Chronar Corporation (Princeton, New Jersey)
 - Texas Instruments (Dallas, Texas)
 - AEG (Wedel/Holstein, Germany)
 - Volkswagen AG (Wolfsburg, Germany)
 - Hughes Aircraft (El Segundo, California)
 - TEAM (Rome, Italy)
 - Melles Griot (Nepean, ON)
 - Oriel Corporation (Stratford, Connecticut)
 - 3M (Minneapolis, MN)

Company history

Kétas Canada Inc. was incorporated in 1981.

Sol-RF Energy Systems Inc. (Affiliate of Kétas Canada Inc.) was incorporated in 1989.

Company formed for joint research and development, with affiliate Kétek Inc., of a patent pending electromagnetic radiation concentrator and applications development for terrestrial and space applications.

Technological expertise

Ernest J. Klein, P.Eng. is a professional engineer with thirty-seven years experience in a range of disciplines including research and development, design engineering, project and executive management of complex systems implementation. He received his B.Sc. in electrical engineering from the University of Manitoba, and subsequently attended the University of Ottawa, University of Cambridge while on an aerospace project assignment in England, and George Washington University during involvement in NASA space programs with the AT&T Bell Labs/Bellcomm space systems group. Mr. Klein is presently in the process of obtaining his Ph.D.

Upon his return to Canada from England, Mr. Klein contributed to the success of Canada's first satellite communication earth station at Mill Village, NS, in theoretical design and implementation, both in the laboratory and in the field. This project was completed in 1966, at which time Ernie joined the Bell Labs space systems group at NASA. He was also a consultant to Telesat Canada for the development of the ANIK satellite system.

Mr. Klein has filed aerospace system patents in the United States, Great Britain and Canada. Two patents in the United States were filed in the name of AT&T Bell Laboratories.

Hans-Jürgen Dorst, Ph.D. received his MSc in Physics in Bonn, Germany in 1975. He obtained his PhD in Physics in 1979. He has taken additional courses in numerical mathematics. He was an Assistant Professor at the University of Manitoba and the Collège de Saint-Boniface, lecturing in General Physics, Biophysics and Relativistic Electrodynamics. He was a Waste Management Consultant in Winnipeg.

Dr. Dorst is presently Scientist, Research and Development, at Sol-RF Energy Systems Inc. in Winnipeg. His responsibilities include feasibility and design studies of various systems in energy and waste management.

Prof. Raymond E. Chant, P.Eng., Industrial Research Liaison, is a native of manitoba and served with the RCAF overseas during the Second World War. He joined the staff of the University of Manitoba 1953 and became Head of the Department of Mechanical Engineering in 1956. In 1975 he resigned to take over the Office of Industrial Research for the University of Manitoba, a position which he held for approximately 10 years. After which he returned to his professorship in the Department of Mechanical Engineering and upon his retirement in December 1987 was awarded an Emeritus Professorship in the Department.

Ray's academic background includes a B.Eng. (Mech.), McGill University 1948 - (Thermal Power Option) and M.Eng. (Mech.), McGill University 1950 - (Heat Transfer & Gas Dynamics).

Additional courses have been taken at the University of George Washington in Engineering Computational Methods, and in Heat Pipe Theory and Practice. Other studies include a course in Solar Energy from the University of Colorado and miscellaneous courses in Contract Law and Industrial Management.

He became interested in solar energy during a sabbatical leave in Virginia where he was associated with one of the first National Science Foundation funded projects, namely the design of a 5000 ft² collector for heating of hot water for a high school gymnasium. Upon his return to Canada the professor became involved in 2300 ft₂ solar demonstration project for the Province of Manitoba. He was responsible for the design, the operation and the monitoring of the system.

In addition to the above projects, Professor Chant participated in the National Research Council's Associated Committee on Solar Projects for a period of four years. The committee had the responsibility of evaluating and funding major projects throughout Canada. Because of this association he became a member of the Canadian Standards on Solar Collector Systems. This Committee was charged with the responsibility of preparing the standards for Flat Plat Solar Collectors in Canada. In addition the Professor has acted as Program Chairman for two Solar Energy Conferences in Winnipeg, the first in 1976 which was a joint conference of the American Section of the International Solar Energy Society and the Canadian Solar Energy Society Inc. (SESCI). The second conference was a modest effort on Renewable Energy in 1986.

The Professor was a founding member of (SESCI), served as the Chairman of the Board on two separate occasions and in 1986 was awarded Solar Person of the Year (Canadian).

Products in development

A unique electromagnetic radiation concentrator (patent pending) using folded-optics for radiation source autotrack with a static input aperture, high concentration of input flux in minimum physical size, and constant normally incident concentrated flux at an orthogonally planar receptor section. In solar input applications, the normally incident flux provides highly efficient utilization of the radiation and allows simplification of the receptor design whether in photovoltaic and/or thermal, or photon bombardment windowing applications, i.e. hazardous waste destruction, metal hardening, water purification, hydrogen generation, etc. At the high end of the concentration capability range, 60,000 suns and beyond, a solar-pulsed laser system could be possible. A particular system format could provide fixed and mobile VSAT modes of operation using an intrinsic phased array.

The system operational characteristics in solar applications are: a stationary input aperture (H-plane; circle involute and E-plane of extended H-plane); source autotrack (± 72 degrees in H-plane and ± 36 degrees in E-plane); flux concentration ranges to 60,000; a throughput efficiency greater than 72%; and a dispersing atmosphere capture cone efficiency of greater than 45%.

NEG-IONS (NORTH AMERICA) INC.

328 - 435 Ellice Avenue
Winnipeg, Manitoba
R3B 1Y6

Telephone: (204) 957-1336
Facsimile: (204) 942-1649

R.R. Robertson, P. Eng.

Major products/services

Supply and installation of negative Ionisation systems to remove contaminants and improve air quality standards for indoor environmental control.

Neg-Ions (North America) designs and installs custom "CLEAN ZONES" to combat problems with fine contaminants in manufacturing processes to assure higher standards of finishing quality and improved Health and Safety conditions on the plant floor.

Similar system design concepts improve hygiene standards in commercial operations and effectively reduce prospective cross contamination.

Desired alliance with other firms

Neg-Ions (North America) specialises in the application of Negative Ionisation techniques for air treatment. Firms in the general field of Heating Ventilation & Air Conditioning could be of assistance to incorporate this specialised electronic equipment which can economically remove micronic and sub-micronic particles from recirculated air normally considered outside the capabilities of conventional mechanical filtration systems.

Of particular interest would be the development of a combined H.V.A.C. system which can be applied to the "Sick Building Syndrome" prevalent in offices.

Company history

Neg-Ions (North America) Inc. is a majority Canadian-owned company incorporated May 17th, 1990 formed as a joint venture between the principals R.R. Robertson, C.E.O., Robthor Steel Consulting Services and C. Oakley, Managing Director, Neg-Ions Limited of the U.K.

Mr. Robertson has had considerable experience in the acquisition and adaptation of new technologies in steel, glass making, plastics, and the construction industries in the U.K., U.S.A., Canada, France, Germany and Turkey.

Mr. Oakley had an established wholly owned business for the installation of H.V.A.C. systems until he decided to investigate the application of Negative Ionisation techniques to resolve problems with fine contaminants in recirculating air systems.

Technological expertise

Altogether Mr. Oakley has been involved in Negative Ionisation Systems for various establishments for a period of about fifteen years. Initial applications included Pigeon Breeding, Pig Production, Turkey Rearing, Race Horse Establishments, Exotic Birds until the very successful development of the "CLEAN ZONE" for industrial installations for which patents are now pending.

Most recently the concentration has been providing a solution to this "Sick Building Syndrome" which has been termed by a client's consultant as the "MISSING LINK" addition for conventional H.V.A.C. systems.

Products developed

Proprietary equipment: Electronic negative ion generators plus a range of specially constructed emitters which provide a highly flexible and adaptable means of distributing or concentrating negative ions.

This results in an entirely static, minimal energy consumption, virtually maintenance free system. A system which controls the migration and precipitation of fine particulants which can otherwise contaminate manufacturing finishing operations or lead to the deterioration of Health and Safety standards in the work place.

Products in development

The "CLEAN ZONE" design concept continues to be adapted for application in a widening range of industries. The most recent version is not only to control contamination within an area but also to contain the spread of contamination between work stations.

Other systems under development include: Hygiene Applications for Dental Surgeries, Hair Dressing Salons, Fast Food Outlets, Offices, Homes and Transport.

**POETKER
MACLAREN
LAVALIN
INC.**

5 Donald Street, Suite 600
Winnipeg, Manitoba
R3L 2T4

Telephone: (204) 477-6650
Facsimile: (204) 474-2864

Alfred J. Poetker, P.Eng.
President & CEO

Kenneth A. Buhr, M.Sc., P.Eng.
CFO

Major products/services

Consulting Engineers, Scientists and Project Managers specializing in studies/designs:

- water supply, transmission, treatment, storage, pumping and distribution
- wastewater collection, pumping, treatment and disposal
- industrial & hazardous wastes
- solid wastes & sludge disposal
- environmental impact assessment and mitigation

Desired alliance with other firms

Joint ventures with other design firms, particularly generalist firms requiring specialist assistance in environmental and sanitary/process engineering.

Company history

Poetker MacLaren Lavalin Inc. is a Canadian owned, Manitoba controlled firm. PML was incorporated February 1, 1990, on the amalgamation of Poetker Engineering (est'd 1978) with the Winnipeg office (est'd 1976) of MacLaren Engineering (est'd 1950) on September 1, 1990, MacPlan Environmental Services Ltd. was acquired as a wholly-owned subsidiary specializing in the environmental sciences.

Technological expertise

The firm has a staff of 23 engineers, 8 scientists, 14 technologists and technicians, and 7 clerical support staff, all of whom are specialized in environmental studies, project design and related fields.

Products developed

The firm has completed studies and designs related to environmental fields, on many hundred of projects. There has been particular specialization in the application of new and innovative technologies.

Products in development

The firm is presently designing wastewater treatment plans for five cities and towns in Manitoba and is involved in research on industrial wastes and dry anaerobic digestion of sludge mixed with composted solid wastes. The firm is also studying the impact of salt laden snowmelt waters on Winnipeg rivers.

TetrES
ENVIRONMENTAL
CONSULTANTS
INC.

603 - 386 Broadway
Winnipeg, Manitoba
R3C 3R6

Telephone: (204) 942-2505

Facsimile: (204) 942-2548

George Rempel, B.Sc., M.Sc., P.Eng.
President

J. Michael McKernan, B.A., M.Sc., M.E.S.
Vice-President

Major products/services

TetrES provides comprehensive environmental science and related services to government and private-sector clients. TetrES provides proven study management skills and credible multidisciplinary teams supported, as required, by the 500 scientists and engineers of two of Canada's most reputable consulting services. TetrES's environmental services encompass:

- Environmental impact assessment
- Air quality
- Hydrological analysis/hydrogeology
- Biology/ecology
- Expert testimony
- Environmental approvals/licensing
- Environmental audits: Site reclamation decommissioning
- Site and route selection
- Remote sensing
- Geographic Information Systems (GIS)
- Computer modelling
- Corporate environmental risk assessment
- Water quality studies
- Water resource development
- Solid and hazardous waste management
- Pollution assessment and control
- Environmental monitoring and program design
- Management of interdisciplinary study teams
- Toxic real estate assessments
- Ground and surface water hydrology
- Public information and consultation

Desired alliance with other firms

On the basis of services provided to such international clients as Domtar, Alcoa, BFI, and Repap, TetrES desire to participate in both joint venture and prime-subconsultant relationships addressing the environmental impact assessment and regulatory approvals for medium- and large-scale developments.

Company history

The company is wholly Canadian-owned, and was incorporated in 1990. Already Manitoba's largest environmental consultancy, the firm is a partnership involving two well-known and respected environmental scientists and two of Canada's most credible environmental and engineering firms.

Principals

The Principals and two of the partners of TetrES Consultants Inc. are George Rempel and Michael McKernan. Each has assumed significant project management and technical responsibility in environmental studies which address biophysical and socioeconomics issues for major hydro-electric, forestry, public works, and industrial development projects.

Corporate Partners

The other two partners in TetrES are Wardrop Engineering Inc. of Winnipeg and Beak Consultants Limited of Brampton, Ontario.

Wardrop Engineering Inc. - See listing in this handout

Beak Consultants Limited

Beak provides a full range of technical expertise in environmental consulting and is one of Canada's largest specialized environmental consulting firms. They are very well known in Canada, especially in the hydro-electric and pulp and paper industries. Headquartered in Brampton, Ontario, Beak's state-of-the-art full services laboratory is recognized as one of the best in Canada.

Among Beak's subsidiary firms is Geomatics International Inc., a nationally recognized GIS firm.

Technological expertise

In particular, TetrES's range of scientific services includes full-service analytical laboratories, GIS, satellite image interpretation and calibration, ecological monitoring, odour and air emissions dispersion modelling (e.g. ISC, BLP), hydrodynamic modelling (e.g. SWMM, QUAL2E).

TetrES's principals have more experience with the provincial and federal regulatory process than any other firm in Manitoba.

UMA ENGINEERING LTD.

1479 Buffalo Place
Winnipeg, Manitoba
R3T 1L7

Telephone: (204) 284-0580

Facsimile: (204) 475-3646

R. Petri, M.Sc., P. Eng.
Vice-President and Manager

Major products/services

Scope of Technical Disciplines and Services

The total scope of technical disciplines and services offered by the Winnipeg office of UMA Engineering Ltd. for studies, design and construction management of projects are: Industrial, Agri-Industrial, Water Treatment, Wastewater Treatment, Solid Waste, Environmental, Transportation, Municipal, Planning, Project Management, Structural, Mechanical/Electrical, Instrumentation/Controls, Civil, Geotechnical/Geological, Hydrogeology, Commercial/Institutional, Recreational, Landscape Architecture, and Construction Management.

Desired alliance with other firms

Associations with other engineering firms for the design, project management and construction management of projects.

Company history

The UMA Group is a privately held Canadian company of which all of the shareholders are employees. The present staff complement amounts to some 1,200 employees, of whom 400 are engineers, planners and other professional and 600 are technical support staff. The size of the company is probably best measured by the annual value of fees generated: some \$153 million in 1990.

Principal offices of the UMA Group are located in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario and Nova Scotia in Canada and in California and Missouri in the U.S.A.

Overseas offices are established on a project basis and have included such countries as Barbados, Puerto Rico, St. Lucia, St. Vincent, Venezuela, Costa Rica, Honduras, Mauritius, Tanzania, Zambia, Ghana, Thailand and Egypt.

UMA Engineering Ltd. is the principal company of the UMA Group.

Technological expertise

Support Facilities

a) Geotechnical Laboratory

The company maintains comprehensive soil testing facilities to undertake such laboratory analysis as grain size distribution, Atterberg Limits, unconfined compression, consolidation, permeability, compaction, triaxial compression and direct shear.

b) Computer Facilities

Computer facilities within the company include a Prime 750 install and two Prime 450 installations, all networked through Datapac, and accessed by high speed terminals in the various offices.

c) CAD System

d) Photogrammetric Services

**WARDROP
ENGINEERING
INC.**

400 - 386 Broadway
Winnipeg, Manitoba
R3C 4M8

Telephone: (204) 956-0980

Facsimile: (204) 957-5389

Mr. Douglas R. Grimes, P. Eng.
President

Mr. Lloyd R. McGinnis, P. Eng.
Chairman & CEO

Major products/services

The Company transfers knowledge from the researcher to the work place by applying advanced technology to the traditional fields of Civil, Structural, Electrical, Controls and Instrumentation, Chemical, Public Works, Hydrogeological, Environmental, and Transportation Engineering. The Firm is also active in the fields of Aerospace and Space Systems Engineering, Biomass, Nuclear Safety, Computer Modelling and Robotics.

Wardrop offers a complete range of environmental services to help industry comply with increasingly complex regulatory requirements. We excel in finding cost-effective, innovative solutions to meet the specific needs of our clients. These solutions are developed in a cooperative environment with involvement by the industry and the regulator to ensure long-term success.

Here are a few of the many areas in which Wardrop provides environmental services.

- **Regulatory Maze:**
 - Liaison
 - Approvals
 - Licensing
- **Sewage Discharges:**
 - Sampling
 - Water Quality Analysis
 - Treatability Studies
 - Treatment System Design
- **Leaky Storage Tanks:**
 - Pressure Testing
 - Exploratory Drilling
 - Soil and Ground Water Sampling
 - Laboratory Analysis
 - Site Remediation
- **Petroleum Spills:**
 - Contaminant Plume Assessment
 - Computer Modelling
 - Cleanup
 - Long-term Monitoring
- **Hazardous/Solid Waste:**
 - Reduction/Recovery/Reuse
 - Storage
 - Inventory/Auditing

- Noise:
 - Sampling
 - Dispersion Modelling
 - Control
- Air & Odour Emissions:
 - Sampling
 - Dispersion Modelling
 - Control
- Production Changes:
 - Process Modifications
 - Waste Reduction Studies
 - Process Development
 - Technology Transfer

Through our affiliated company, TetrES Consultants Inc., we are also involved in such activities as Comprehensive Environmental Impact Audits and Assessments.

Desired alliance with other firms

Wardrop is receptive to both joint-venture and prime-subcontractor arrangements.

Company history

The Company was founded in 1955 and is a private Canadian company, actively engaged in projects across Canada and Internationally. The Firm provides engineering, management, environmental and planning services to government and industry, including high tech industries such as: aerospace and defence; heavy industries including nuclear, mining, steel, pulp and paper; and medium and light industries such as foundries, manufacturers and food processors.

- Current Markets:
 - Canada, Ghana, Nigeria, Pakistan, Indonesia
- Annual Revenue:
 - \$15.0 - \$17.0 Million (CDN) (export activities represent 20% of the firm's revenue).
- Employees:
 - 220 (200 professional and technical)
- Computer facilities include a Local Area VAX Cluster (LAVC), consisting of a MicroVAX 3800 Computer, two MicroVAX II mini-computers, 60 IBM AT and four 386 Compatible MS-DOS-based personal computers, and a MacIntosh IIX and SE.
- Offices:
 - Winnipeg, Manitoba (head office)
 - Toronto, Ontario
 - Thunder Bay, Ontario
 - Edmonton, Alberta
- Affiliated Companies:
 - Wardrop (Nigeria) Ltd.
 - Wardrop Applied Systems Inc.
 - TetrES Consultants Inc. (in partnership with Beak Consultants Limited and other private investors)

Technological expertise

The Firm offers a full range of engineering services in water, wastewater and sewage treatment; solid and hazardous waste management; pollution assessment and control; indoor and outdoor air quality; noise pollution; urban renewal and site reclamation; and environmental monitoring. Personnel are also experienced in managing environmental assessments in close liaison with regulatory agencies, and including public participation programs. Internationally, Wardrop is very active in the rural and urban water supply, sanitation, and health sectors. Services exported encompass project management; engineering design and technology transfer, human resource development including public education; institution building; strategic investment, regional and economic planning; and procurement.

WEATHERTEC SERVICES INC.

298 Garry Street
Winnipeg, Manitoba
R3C 1H3

Telephone: (204) 943-3386
Facsimile: (204) 943-2261

Mr. John Junson, President

Major products/services

- Climatological studies for hazardous waste disposal sites
- Weather forecasting and observing and consulting
- Producing weather maps and displays for newspapers
- Producing graphic weather maps for computer networks

Desired alliance with other firms

KGS Group - Engineering firm consulting for hazardous waste disposal sites.
Grassroots Information Service, Comcheq and Atmospheric Environment Services

Company history

Weathertec Services Inc. is a wholly-owned Canadian company, incorporated in 1987. It is comprised of meteorologists, Meteorologists Technicians, Computer Specialists and Climatologists.

Technological expertise

We have access to all past and current hourly weather reports of temperature, sky conditions, precipitation, wind, evaporation, sunshine, relative humidity and other elements.

Products developed

Climate studies of proposed hazardous waste disposal sites - Rossburn, Manitoba.

Products in development

Climate study of proposed site near Winnipeg.

HEALTH INDUSTRY

ATLAS LABORATORIES CO. LTD.

757 Sargent Avenue
Winnipeg, Manitoba
R3E 0B3

Telephone: (204) 775-2707

Facsimile: (204) 783-9664

Mr. Andy C.Y. Hsu, Ph.D.
President and CEO

Major products/services

- Manufacturer of prepared culture media, media supplements, animal bloods, plasma and sera, glucose tolerance beverages (Glucotol) biological stains, solutions and buffers, sterile swabs and transfer swabs
- Distributor of small laboratory plastic wares, dehydrated media and supplements, petri-dishes, braces, disposable latex and vinyl examination gloves
- Services, biological quality control, custom sterilization by autoclave and EtO gas

Desired alliance with other firms

- producers of medical diagnostic firms for licencing arrangement
- distributors for distributing our products outside the Province of Manitoba
- performing research and development work under contract
- production of new diagnostic products under licence

Company history

A wholly Canadian-owned private company devoted to the manufacturing of various medical diagnostic products since 1977. Principals of the company include Andy C.Y. Hsu, Ph.D in Microbiology, Edita S. Mateo, M.D. in pathology and Mrs. Lea Habunal, B.Sc. in medical technology. Currently, Atlas Labs has 3 full-time and several part-time employees.

Technological expertise

The company has strong expertise in medical diagnostic fields such as Microbiology, Serology, Hematology, Histology and Biochemistry; in producing various antisera from various large animals. Furthermore, it has the facilities to conduct all serological tests.

Products developed

- Developed Leukotest for quick differentiation of infections from bacteriological or viral origins
- Developed G.C. Supplement for the cultivation of fastidious organisms including gonococci
- Developed the formulae for Glucotol (a glucose tolerance test beverage)

Products in development

- A new formula for glutaraldehyde based disinfectant
- Isolation of new strains of micro-organisms which can facilitate the decomposition of various types of wastes

MANREX LIMITED

1036 Waverley Street
Winnipeg, Manitoba
R3T 0P3

Telephone: (204) 453-6247

Facsimile: (204) 453-6350

Fiona Webster Mourant, President
Mr. John H. Webster, CEO

Major products/services

Manrex Limited is a 100% Canadian company who specializes in medication delivery systems.

Our major achievement is with our P.C.I. Controlled Dosage System for Long term Care Facilities. This is a systematic method of controlling the distribution of medication at the pharmacy and nursing level with a minimum of time and error. To ensure we remained the top in our field and to make our System more cost effective, we improved on our already secure Controlled Dosage System by developing a reusable plastic card. We also provide inservice materials for the pharmacy and nursing staff, which includes VHS film library, and monthly publications all professionally produced in Winnipeg. We also developed Pharmacy Pill Pak, a medication delivery system for elderly people living at home who self administer.

Manrex Medication Trolleys yet another innovative creation by Manrex. Canada's largest manufacturer of medication carts or trolleys, working in close conjunction with nursing. The nurses use these carts for controlling and delivering medication within the facility.

Company history

Manrex Limited started as a small three person company in 1973, one of the first, unique in its field in Canada. Manrex has grown to supply its specially developed medication delivery systems to every province in Canada from its location in Winnipeg. Manrex has also expanded its system to service hospitals and nursing homes overseas including Australia - New Zealand, Australia, Europe and the United Kingdom.

Products developed and Manufactured in Winnipeg

Controlled Dosage System, including our plastic reusable card for Long Term Care beds, Webstersystem for Acute Care hospital beds.

Medication Trolleys, used for transporting medication on med rounds.

Pharmacy Pill Pak, medication delivery system for elderly people who self administer their medication.

Professional Education Programs.

Products in development

Compucare a computerized medication recording system. New line of medication carts and allied accessories. Also introducing Meditrol, certainly the ultimate in world wide medication control and delivery in the world today, offering dramatic savings to hospitals.

MEDICHAIR LTD.

117 - 7th Street
Brandon, Manitoba
R7A 3S5

Telephone: (204) 726-1245

Facsimile: (204) 726-5716

Mr. David Sjoberg, President
Mr. Scott Purdy, CEO

Major products/services

Franchiser and exclusive Canadian distributor of a full line of durable medical equipment including the Pacesaver Plus II, Pacesaver Titan, Pacesaver Excel three wheeled electric scooters, lift chairs, Aquatec Bath Lifts, Uniscan Walk N Rest Walkers and ETAC Nova Walkers. Franchise and distribution network includes over one hundred seventy-five outlets covering all provinces in Canada.

Desired alliance with other firms

MEDIchair Ltd. has the facility available through its franchise and dealer network to distribute durable medical equipment to any or all parts of Canada. MEDIchair's focus consists of mobility products geared towards the fastest growing segment of Canada's population known as "seniors".

Company history

MEDIchair Ltd. was founded in 1985, by two partners who recognized the need to service the "seniors" segment of our population. After a short period in direct mail marketing, it was decided to open an actual storefront. The early success of the venture, coupled with the exclusive rights to a group of products, made way for an exciting and accelerated ride into the world of franchising. By 1991, MEDIchair Ltd. had over one hundred seventy-five stores and dealers operating in Canada. These stores follow a prescribed program including a three level marketing strategy, store design and rights to exclusive territories.

Technological expertise

- Franchising
- Established distribution system to all provinces in Canada
- Product importation and brokerage

Products developed

- Adjustable rollator

STRESSFREE CANADA INC.

500 - 283 Portage Avenue
Winnipeg, Manitoba
R3B 2B5

Telephone: (204) 942-5089

Facsimile: (204) 941-4533

Dr. Toby Rutner, President

Major products/services

Assessment, Evaluation, Consultation and Training, of organizational infrastructure with regard to employee performance and establishing excellence.

Improving corporate profits through the development of innovative management skills that have been formulated in a rigorous and scientific manner.

Services:

- Strategic Planning
- Work Environment Evaluation
- Organizational Stress Management
- Human Resource and Organizational Analyses
- Assessment of Critical Management Directives
- Recruitment Evaluation of Personnel Selection
- Diagnosis of Employee Occupation Stress Inventory

Actions:

Skilled professionals, able to introduce methods to encourage conflict resolution from within. Experts in domestic and international management techniques with a focus on improving the corporate bottom line by empowering individuals to be more productive.

Seminars and workshops, as well as consultation focused on improving the management structure through consensus and long range planning.

A straightforward approach to strengthening corporate decision-making without relying on a showbiz style to educate managers and executives.

Desired alliance with other firms

Human resource organizations, employment agencies and personnel departments operating in an extremely demanding environment.

Manufacturing and service oriented companies, professional organizations, and government agencies.

Company history

A Canadian-owned business based in Winnipeg began operating on September 1st, 1988. Under the principal direction of Dr. Rutner, StressFree was established to identify the factors that affect a decline in employee productivity, absenteeism, rising costs, and related organizational concerns.

StressFree has worked with small companies, government agencies and unions to identify and solve problems associated with stress in the workplace.

Technological expertise

StressFree utilizes the most comprehensive analytic tools and testing equipment to perform a complete evaluation of corporate and organizational management issues.

Using the STRESS AUDIT, an organization is able to detect symptoms and define vulnerability factors contributing to reduced employee performance and declining corporate productivity.

Follow up includes cost-benefit analysis and recommendations for improved output and employee performance.

Products in development

Constant refinement and development of diagnostic and assessment tools to identify corporate performance through organizational analysis.

UNLIMITED MOBILITY INC.

2 - 1247 Clarence Avenue
Winnipeg, Manitoba
R3J 1T4

Telephone: (204) 474-1489
Facsimile: (204) 477-4938

Ken Kitchen, C.ET., P.Mgr.

Major products/services

• Handicapped and aged mobility specialists:

Unlimited Mobility acts as dealer and distributor for the complete spectrum of mobility products e.g van conversions for wheelchair bound, elevators (inside, outside, stairs), residential and commercial ramps. Powered scooters and wheelchairs, ramps. overhead track systems. Design and idstallation of custom elevators. Accessibility studies.

Desired alliance with other firms

Technology transfer, joint venture, equity participation. Market and distribution of mobility products in Manitoba. Interested in setting up light manufacturing, assembly and distribution of durable medical products.

Company history

Unlimited Mobility was formed in 1984 and has enjoyed steady growth in the mobility field. Mr. Ken Kitchen is considered one of the leading experts in the field in Manitoba and is consulted by all the agencies concerned with the aged and handicapped.

Technological expertise

Mr. Ken Kitchen has over 40 years diverse experience in the engineering medium and 8 years experience in the handicapped medium.

Extensive experience in consulting customers and tailoring products for their needs.

Products developed

Have developed several custom built elevators to suit difficult situations where standard units were not applicable.

Products in development

None at present.

WESTNOFA OF CANADA LTD.

1091 Golspie Street
Winnipeg, Manitoba
R2K 2V3

Telephone: (204) 667-7106

Facsimile: (204) 661-4616

Maurice McCarthy, President

Major products/services

Manufacturer of hardwood tables, seating and casegoods for healthcare facilities, offices and institutions. Products include patient room furniture, lounge and lobby furniture. Boardroom - Dining - Office tables and chairs, dormitory furniture and custom wood work.

Desired alliance with other firms

Firms in the healthcare field where we can import and market the product or preferably manufacture the product under licence in whole or in part ourselves. The products would be seating casegoods, eg. table type of products.

Company history

Westnofa of Canada Ltd. is a wholly Canadian-owned company that began operations in 1958. Principals of the company include Mr. Maurice McCarthy with more than 10 years in administration and financial experience and Mr. David Spearman with more than 15 years in marketing and product design. Westnofa has approximately 35 employees.

Technological expertise

Westnofa has specialized in the development of patient seating engineered with the proper height seating and back angle development, ease of entry/exit and comfort.

Products developed

Patient chairs, bedside cabinets and casegoods, patient lounge furniture, seating and tables for use in geriatric and pediatric wards.

Products in development

Patient lounge seating and tables in a more residential traditional look. Also residential style furniture for people 55 and over for home purchase instead of institutional purchase.

MISCELLANEOUS INDUSTRIES

**ACCRO
FURNITURE
INDUSTRIES
Division of
Acme Chrome
Furniture Ltd.**

211 Hutchings Street
Winnipeg, Manitoba
R2X 2R4

Telephone: (204) 633-8432
Facsimile: (204) 694-5586

Mr. T.J. Clark
President

Major products/services

Accro Furniture Industries manufactures an extensive range of furnishings for office, health care, educational and hospitality facilities as well as casual dining sets for residential use. In addition, Accro Furniture Industries has custom manufacturing capabilities which encourage the design and development of specialized furnishings to proprietary specifications.

Desired alliance with other firms

We have the capability to import components for final manufacture and/or assembly and distribution throughout the North American market. We have experienced considerable success in this field with Ergonomic seating from West Germany and office and institutional seating from Italy.

Company history

Established in 1946, Accro Furniture Industries, Division of Acme Chrome Furniture Ltd., is a Canadian owned company. Principal of the company is Mr. T.J. Clark who has more than 30 years experience in the furniture industry. The company currently employs approximately 70 people.

Technological expertise

We are capable of quality tubular steel fabrication including MIG welding, punching, bending, forming, and gas brazing. We also are equipped to work with high pressure laminates and the application of various edge trims on a production basis. We employ a complete upholstery line utilizing die-cutting and electronic heat sealing.

Products developed

Consumer products for a wide variety of applications in health care, educational, office, hospitality and residential facilities.

Products in development

Assist devices for Aged and Independent Living, Geriatric seating and health care products.

AECL RESEARCH

Head Office:

334 Slater Street
Ottawa, Ontario
K1A 0S4

Telephone: (613) 237-3270
Fax: (613) 563-9499

Dr. T.E. Rummery, President

Plant Sites:

Whiteshell Laboratories
Pinawa, Manitoba
R0E 1L0

Telephone: (204) 753-2311
Fax: (204) 753-8404

CONTACT:

C.A. (Sandy) McDowall
Commercial Office Manager

Chalk River Laboratories
Chalk River, Ontario
K0J 1J0

Telephone: (613) 584-3311
Fax: (613) 584-4024

CONTACT:

Neil Smith
Commercial Office Manager

Major products/services

- Technology to support the production of electricity using nuclear power
- R&D contract services to the Canadian nuclear utilities
- International contract and consulting services in the field of nuclear waste management
- General R&D contract services to government and industry in the fields of energy, the environment and human health
- Production of isotopes for medical diagnostic applications

Desired alliance with other firms

- Development and supply of technologies and services for monitoring, protection and cleanup of the environment
- Development of small scale reactor systems that can replace the use of the fossil fuels for heating applications (eg. in remote areas)
- Development of advanced composite materials

Company history

AECL is a Canadian Federal Crown Corporation, established in 1952 with a mandate to develop peaceful uses of nuclear technology to the benefit of Canada. It is comprised of two major operating companies, AECL CANDU and AECL Research, both reporting directly to a Corporate Head Office in Ottawa, Canada. AECL Research is the second largest research organization in Canada with over 3000 scientists, engineers, technologists, skilled tradesmen, and support staff at two centres, the Whiteshell Laboratories in Pinawa, Manitoba and Chalk River Laboratories at Chalk River, Ontario.

Technological expertise

The staff of 1000 at the Whiteshell Laboratories and 2400 at the Chalk River Laboratories encompass a broad range of disciplines skills and experience. These talents along with the sophisticated facilities at the sites enable AECL Research to undertake a wide variety of testing, problem solving, and research assignments in the fields of energy, the environment and human health.

Products developed

AECL's major product, the CANDU reactor, has been judged one of the ten outstanding Canadian Engineering achievements of the past 100 years and is one of the world's two successful reactor systems for generating electricity. Technology developed for cancer therapy is credited to date with prolonging human life by over 13 million years. Units for sterilization of medical supplies are used around the world. AECL Research supplies

80% of the global demand for medical diagnostic isotopes.

A wide range of other technologies have been developed to support the CANDU system, including those for protection of human health and the environment. Many of these technologies have nonnuclear applications.

Products in development

Small-scale reactors for space heating applications; machine sources of low cost radiation for applications in plastics, agricultural and waste treatment industries; instruments for monitoring soot in exhausts from large diesel trucks and buses, and for monitoring the build up of carbon particulates in engine lubricating oil; instruments for monitoring a wide variety of chemicals in the industrial environment and for checking indoor air quality in the nonindustrial workplace; development of new lightweight high-strength composite materials using radiation processing technology for application in the space programs; a new process to produce a currently available generic weed-control herbicide at a lower cost. Custom-engineered, unique, materials testing systems such as the internal friction (ADUCOT) and the surface roughness (CAST) systems.

CANMAG, CANADIAN ELECTROMAGNETICS LTD.

45 Sylvan Way
Winnipeg, Manitoba
R2R 2B9

Telephone: (204) 697-2951

Facsimile: (204) 697-4125

Mr. Peter Klein, President

Major products/services

- The manufacture of all components of quadruple and sextuple electromagnets.
- Vacuum impregnation of magnet coils with epoxy resin.
- Fine blanking die techniques is used to manufacture steel laminations which are stacked together to form magnet sections.
- Computer controlled field mapping for completed magnets.
- Checking and testing at each stage, many done in conjunction with a computer data acquisition system to ensure a long service life with the lowest chance of failure.
- Winding and vacuum impregnation servicing of replacement coils for existing equipment.
- Primary market is the particle accelerator industry.

Desired alliance with other firms

CanMag is a manufacturer of electromagnets for the particle accelerator industry. Joint ventures/enquiries/arrangements will be considered.

Company history

CanMag is a Winnipeg based affiliate of K&S Tool and Die Ltd. It was formed to provide a Canadian supplier to meet the International demand for focusing elements in the particle accelerator industry. Since its inception it has provided quadruple and sextuple magnets to institutions in Canada and Europe. The ability of the Company to manufacture all the components of the finished product make it unique in Canada.

Effective March 25, 1991, we will be in new and expanded facilities - 10,450 sq. ft. jointly with K&S Tool and Die Ltd.

Technological expertise

CanMag is a leader in vacuum impregnation with epoxy resin. Our formula is recognized in North America and Europe. Our company has a state-of-the-art field mapping testing procedure and equipment.

Products developed

- Completion production of electromagnets - all components manufactured
- Vacuum impregnation
- Coils
- Testing and manual

DIMATEC INC.

180 Cree Crescent
Winnipeg, Manitoba
R3J 3W1

Telephone: (204) 832-2828

Facsimile: (204) 832-4268

Mr. R.J. Wright, President
Mr. Ivor Perry, Vice President

Major products/services

- Diamond core drill bits
- Diamond reaming shells
- Diamond casing shoes
- Stabilized products, used in diamond drilling industry
- Core barrels and rods, used in diamond drilling industry

Desired alliance with other firms

Requiring distribution channels in other countries for our "in hole" diamond core drilling products.

Potential distributors would ideally be involved in the supply of products to the diamond drilling and/or mining industry.

Company history

Dimatec Inc. is a manufacturer with its emphasis on "total quality management". The company is wholly owned and operated by three active managers. The company has been in operation since 1955, in January 1988, the company ownership and name changed, to Dimatec. Dimatec has two divisions, a diamond products division and a precision machining services division.

Technological expertise

Dimatec Inc. considers themselves to be in the forefront of diamond tool technology. The company has under its belt more than twenty years of diamond tool technological expertise in the form of the owner managers. The equipment used to manufacture the diamond products is very modern and had been installed approximately two years ago.

Products developed

A new generation of diamond core bits have been developed called the "MX Series". These have proved to be very fast penetrating in hard rock drilling also giving good bit life.

Products in development

Dimatec is investigating the feasibility of manufacturing products which are used in the environmental drilling industry.

***EPT
MANUFACTURING
LTD.***

2000 Powell Avenue
Winnipeg, Manitoba
R3H 0H6

Telephone: (204) 632-0938
Facsimile: (204) 633-4314

Ernie Enss, President

Technological expertise

Wide Range of tooling made.

Products developed

Industrial tooling up to 4000 lbs.

Major products/services

Dies, molds-permanent, injection, prototype, master patterns, matchplates, shell core boxes, machining fixture, assembly jigs, prototype machining, design tooling and fixtures to meet your needs from metric or imperial drawings.

Desired alliance with other firms

Any manufacturing companies.

Company history

EPT Manufacturing Ltd. was incorporated in 1981.

EMBASSY GRAPHICS LTD.

3rd Floor, 583 Ellice Avenue
Winnipeg, Manitoba
R3B 1Z7

Telephone: (204) 772-8977

Facsimile: (204) 774-2735

Mr. Brian Payne, President

Major products/services

Complete pre press services. The range of services include:

- layout and design
- typography
- laser color separations
- electronic page make-up & retouching
- color stripping & camera services
- complete service bureau status - PC & Mac
- high resolution output
- disk translation & conversion
- computer generated graphics & illustrations
- research, development and testing for electronic pre press equipment & software
- heliogramme's - Embassy Graphics has acquired the exclusive rights for the Heliogramme. A heliogramme is a B/W line conversion technique which is used in course line printing allowing the photo to print with incredible detail

Desired alliance with other firms

Embassy Graphics has an interest in developing alliances with firms of a similar nature throughout Canada and the United States to sell Heliogramme's in their respective area.

Embassy Graphics is also looking for related firms with the interest of merging and/or purchasing.

Company history

Embassy Graphics is a partnership established in 1990 by experienced pre press and printing based personnel and is headquartered in Winnipeg, Manitoba with a sales office in California. Due to the rapidly changing technologies in the pre press industry, the company was formed to develop and enhance the technology, and supply superior quality and service by using it.

Embassy is a business built on quality and service, providing electronic pre press services for companies such as Federated Co-operatives, Macleods-Stedman, Investors Syndicate, Duck's Unlimited, Pollard Banknote and Saan Stores, not to mention numerous ad agencies, designers and printers. Embassy is now expanding its markets to Vancouver, Toronto and the United States.

Technological expertise

Embassy Graphics has a dedicated group of individuals with expertise in all areas of pre press. Almost all the staff have at least 10-15 years of experience, with some having over 25 years experience. In addition to traditional tradespeople, Embassy has experienced computer hardware and software personnel on staff. Embassy's System Manager alone has a Master's Degree in Computer Engineering and a second Master's Degree in Computer Graphics. Embassy's staff is well equipped and prepared to undertake projects of any scope and will use their skills and experience to provide solutions which recognize the unique requirements of individual clients.

Products developed

Embassy has developed Methodologies and Systems in order to produce films used in the printing process through electronic means. In addition to the development, through a joint European Venture, of the Heliogramme Technology.

Products in development

Research and development focused on complete electronic pre press, through the development and enhancement of software and hardware.

INVENTRONICS LIMITED

1420 Van Horne Avenue East
Brandon, Manitoba

Telephone: (204) 728-2001

Facsimile: (204) 726-0807

Gary R. Thompson, President

Major products/services

Products manufactured are all made from sheet metal. Most are enclosures, housings, racks and related hardware for telecommunications, power and electronic equipment.

Services provided are: Engineering - Inventronics provides design and development support for new products or cost reducing existing product. Prototyping support provided as well.

Warehousing and Distribution: Customers who have a requirement for products to be warehoused and distributed to specified locations can be accommodated.

Assembly: Inventronics provides a complete assembly service which can include customer provided components as well as those manufactured in-house. Examples are assembly of plastic components with sheet metal parts, preparing wire harnesses, installing telecommunication modules and wiring harnesses in various product.

Desired alliance with other firms

Joint venture or licensing agreements for the transfer of product or manufacturing technology which would assist in the growth of Inventronics' markets and sales.

Company history

Inventronics was started 20 years ago as a cottage industry. Originally it was created to design and manufacture a thermostat for electrical heating. After some 5 years, several circumstances led to a change in direction which subsequently resulted in the Company manufacturing product for the telecommunications markets.

Inventronics' first plant started in Brandon, Manitoba. In 1980 it acquired a plant in Moose Jaw, Saskatchewan and in 1988, the Edmonton, Alberta facility was purchased.

The goal of the Company is continued profitable growth by internal expansion, acquisition and joint ventures in the telecommunications and electronic product areas.

Technological expertise

Expertise is in the following areas:

Manufacturing: sheet metal fabrication, plating, power painting.

Engineering: mechanical and electrical design.

Product Design: Telecommunications and electronic, racks, enclosures and housings.

Products developed

Numerous products for the telecommunications, electronic and power utility markets.

Products in development

Numerous products for the telecommunications, electronic and power utility markets.

K & S TOOL AND DIE LTD.

45 Sylvan Way
Winnipeg, Manitoba
R2R 2B9

Telephone: (204) 697-2951

Facsimile: (204) 697-4125

Mr. Peter Klein, President

Major products/services

- Tool and Die
- EDM
- Designing and Engineering

Specialists in precision work involving Progressive Dies, Compound Dies, Fine Blanking Dies, Jigs and Fixtures, Injection Molds, Vacuum and Blow Molds, Precision Machining.

Desired alliance with other firms

To provide services and special project engineering, including design and manufacture of dedicated specialized machines and products.

Company history

K & S Tool and Die Ltd. is a privately owned Canadian company which was founded in 1975. The highly skilled staff consists of 12 tool and die makers and 1 quality control manager. The principal of the company is Peter Klein, President/Owner who gained his experience in the tool and die trade in West Germany. K & S Tool and Die Ltd. has re-located to its own building of 10,400 sq. ft.

Technological expertise

The company performs work for a wide range of industries including Aerospace, Electronics, Food and Agriculture. K & S Tool and Die Ltd. performs work for such companies as Bristol Aerospace Ltd., Boeing of Canada, Unisys Canada Inc., Northern Telecom Ltd., Otto Bock Orthopedics of Canada and Can Car Rail Inc. Materials included: Aluminum, Stainless Steel, Incoloy, Titanium, Beryllium, Cooper. Quality Standards: AQAP-4.

Products developed

K & S Tool and Die Ltd. has combined several areas of expertise to produce Multipole Electromagnets used in pure and applied scientific research. An affiliate (CanMag, Canadian Electromagnetics Ltd.) was founded for the production of electromagnets, coils and related work.

Products in development

None.

**MONARCH
INDUSTRIAL
COATINGS
Division of
Monarch
Plastics Co. Ltd.**

P.O. Box 20430
269 Hespeler Road
Steinbach, Manitoba
R0A 2T1

Telephone: (204) 326-5891
Facsimile: (204) 326-5664

Mr. T.J. Clark
President

Company history

Monarch Industrial Coatings, Division of Monarch Plating Co. Ltd., was established in 1989, is a Canadian owned company. Principal of the company is Mr. T.J. Clark who has more than 30 years experience in the metal furniture industry. Monarch Industrial Coatings employs approximately 14 people.

Technological expertise

Monarch Industrial Coatings has the capability of custom electrostatic powder coating application using a full range of colors and textures that provide a superior, more durable and environmentally compatible finish on all types of metal products.

Major products/services

Production line electrostatic powder coat finishing process. Includes complete power wash pre-treatment, preheat/drying stage, manual or automatic application process and single pass variable temperature cure oven. A 1,000 ft. monorail conveyor accommodates items of large weight or dimension.

Desired alliance with other firms

To locate custom powder coat painting work with additional assembly and packaging complete with forwarding directly to end user.

NATIONAL COATING TECHNOLOGIES INC.

1975 Logan Avenue
Winnipeg, Manitoba
R2R 0H8

Telephone: (204) 632-5585

Facsimile: (204) 694-3282

Mr. John Read
Vice-President & General Manager

Robert N. Logan
CEO

Major products/services

- Thermal spraying of metallic and ceramic coatings on metal components for the aerospace, pulp & paper, mining and other industries.
- Manufacture of patented, ceramic coated Uhle box rods for paper mills
- Manufacture of metallic and ceramic coated pump sleeves for heavy duty pumps in mining and pulp & paper
- Field thermal spraying of metallic and ceramic coatings on dryer rolls, structural members, etc.

Desired alliance with other firms

To provide coating services as part of repair and overhaul services of manufacturing services offered by other firms lacking expertise and/or equipment for coatings.

Company history

National Coating Technologies Inc. is a Winnipeg-owned company founded in 1990 following the acquisition of the assets of Plasma and Flame Coatings Ltd., which began operations in 1971. During its 20 year history, the company has grown from 3 to 12 employees and has expanded its facilities to 18,000 sq. ft. National Coating Technologies is the largest independent thermal spray (metallizing) company between southern Ontario and Alberta.

Technological expertise

National Coating Technologies Inc. (and its predecessor) has been a major subcontractor to Bristol Aerospace Limited for more than 15 years. National Coating Technologies also provides thermal spraying service to Standard Aero, Boeing Canada and other firms in the aerospace industry. Three of the four full time spray operators have more than 10 years experience with coating materials, such as magnesium zircon, aluminum/polyester, chromium oxide, etc.

Products developed

Developed and patented a ceramic coated Uhle CPX road used in the papermaking process to condition felts.

SAFE-T-HEAT PRODUCTS LTD.

300 - 110 Princess
Winnipeg, Manitoba
R3B 1K7

Telephone: (204) 947-0881
Facsimile: (204) 947-1398

David G. Stitz, President & CEO

Major products/services

ELECTRIC RADIANT HEATERS for Residential, Commercial, Industrial, Agricultural, Medical and Automotive industries as well as Personal heaters.

Desired alliance with other firms

As our new heating technology enables the development of products that are as wide in range and application and are limited only to ones imagination, we would invite firms to participate in the manufacture of proven products and the development of new ones. We would be interested in a royalty arrangement, licensing of our patent, or a joint venture agreement.

Company history

Safe-T-Heat Products Ltd. was started approximately 9 years ago by David Stitz of Winnipeg. The company manufactured standard radiant heaters for 8 years. Three years ago we began developing a carbon designed element which could be introduced into plastics without chance of delamination. This new technology was patented 2 years ago and can produce almost every type of heating requirement. The marketing of this new technology is now underway with a very positive future.

Technological expertise

David Stitz has the experience and expertise in radiant heat and product design. Mr. Stitz developed a new electric heat technology which enables a specially made element to be encapsulated into glass cloth. By using various resins (polyester, phenolic, vinyl, etc.), we can manufacture a superior heater which weighs over 50% less than the metal heaters for easier handling and lower shipping costs. It is less labor intensive and cheaper to manufacture by 50% and produces safer heat. The products can be molded and shaped to accommodate a great number of current applications as well as new products that could never be built before. It can be made for all voltages, AC/DC, and in limitless wattages.

Products developed

CSA approved products. Under desk heaters, floor foot heaters, farrowing pen and brooding heating, T-Bar ceiling panels, cove heaters, water tank heaters.

Products in development

CSA Class I, II, III heaters for explosion proof, hazardous locations, grain elevators, mills, paint factories, etc., as well as dental water heater, pet heater, heaters to compromise hypothermia and prosthetic heaters.

TECHNICAL PRODUCTS INTERNATIONAL

90 Durand Road
Winnipeg, Manitoba
R2J 3T2

Telephone: (204) 669-6690
Facsimile: (204) 661-8657

F.W. Wellink, President
R.D. Mellon, Operations Manager

Major products/services

Technical Products International provides an alternative to the long wait associated with the manufacture of made-to-order cable assemblies.

The company has developed a leading edge process of manufacturing molded connectors which forgoes the typical use of metal molds.

This ability affords an opportunity to respond quickly with samples and engineering prototypes. In today's world economy, time is the essential advantage you need on any project. We then back this up with a commitment of providing production quantities with prompt, on-time service.

Product quality is assured with a demanding product evaluation process. Each and every cable assembly is tested after preliminary assembly and again prior to final packaging.

Our expert staff has the finest testing and evaluation equipment available.

Desired alliance with other firms

Technical Products International is seeking to establish close relationships with firms in the development of new markets and opportunities in the electronics field that will further the evolution of all involved.

Company history

Technical Products International was founded in the City of Winnipeg in May of 1980 with the principal owners being Frank and Erika Wellink.

The company began as a distributor of electronics hardware and accessories. With the introduction of production facilities in January 1987, the business of distribution soon became secondary to that of manufacturing.

Being a truly global company, Technical Products International has established a team of individuals from North America, Europe and Asia.

International Sales: Exceeding 30% of gross sales

R&D Expenditures: More than \$1.5 million

Employees: 22

Production facilities: 10,500 sq. ft.

Current Markets: Canada, United States and Europe

Technological expertise

F.W. Wellink is a High Frequency-Electronic Engineer graduate of the Philips N.V. Technical School in the Netherlands. Mr. Wellink has more than 20 years of participation in the electronics industry from perspectives including design, service, and management in Europe and Canada.

R.D. Mellon possesses 10 years experience as a previous employee of a nationally recognized wire and cable manufacturer located in the United States. His responsibilities including managing the new product development cycle including, product design, polymer selection and formulation, process engineering, and acquisition of all agency approvals.

Products developed

Technical Products International specializes in the manufacturing of custom and standard electronic cable assemblies, featuring injection molded ends, and additional electronic sub-assemblies requiring insert injection molding.

Products in development

Current emphasis is towards increasing penetration in the following markets: Medical, Aerospace, Transportation, Communication and Information systems.

**TECHNICAL
RESEARCH,
INVESTIGATIONS
AND
DEVELOPMENTS
(TRIAD) LTD.**

787 Haney Street
Winnipeg, Manitoba
R3R 0Y7

Telephone: (204) 885-6099
Facsimile: (204) 885-6099

Dr. Elaine Thompson, President

Major products/services

- Consulting Services for product development - investigations into product failure, literature surveys
- Chemical Analyses

Desired alliance with other firms

- Surface Analyses
- Asphalt Cement Testing
- Asphalt Concrete Evaluations

Company history

Federally incorporated consulting firm operating since October 1986.

Principal of the company is Elaine A. Thompson, Ph.D., with ten years experience in chemical consulting in a wide range of areas.

Technological expertise

E.A. Thompson has been involved for over 20 years in chemical research and development - synthetic organic chemistry, asphalt emulsions, analyses, pavement recycling, alternate fuels, literature surveys, sewage treatment, polymers, surface chemistry (adhesives), formulations - and in legal investigations and technical editing.

Products developed

Emulsified Rubber Asphalt incorporating vulcanized rubber crumb; Rapid Sewage Treatment Unit; Methanol Fuel for use in Diesel Engines; Agricultural Field Market, micro reference electrode.

Products in development

Hay Preservative, Novel Ammonia Plant, Microwave Asphalt Recycling Plant.

UNIVERSAL ROBOTICS CORPORATION

627 Dudley Avenue
Winnipeg, Manitoba
R3M 1P5

Telephone: (204) 452-6500
Facsimile: (204) 452-1257

Mr. Lindsay Thomas Oliver
President

Major products/services

New Product Development

Manufacturer of the "SMARTOOL", a semi-robotic man-amplifier designed for grinding applications in the hydro electric, ship building, tank repair and other industries.

Technology support for manufacturing firms in new product design, strategic planning for advanced manufacturing methods.

Factory floor computer simulation services for the advanced planning for CIM implementation.

Desired alliance with other firms

Universal Robotics Corporation is seeking a joint venture or alliance with a company interested in our SMARTOOL device. This joint venture partner may be involved in the hydro electric industry or any industry involving industrial grinding where tool sales or rental is involved.

Universal Robotics is seeking an equity partner in this area to commercialize the SMARTOOL for the world market and is currently engaged in marketing studies to survey potential markets other than the hydro electric industry which is already a proven area of development.

Company history

Universal Robotics Corporation was formed on November 4, 1987.

It is a wholly Canadian-owned company based in Winnipeg, Manitoba. The 2 sole directors of the company are Mr. Lindsay T. Oliver, President and Mr. Randy Wallman, Executive Vice-President and Secretary/Treasurer.

Both principals have a combined experience in robotics and new product development spanning 15 years.

The company has a full time staff of 8 people in engineering and sales with over 20 Associates worldwide utilized on specialized projects as required.

The company has doubled sales every year since its inception.

Technological expertise

See Major Products/Services.

Products developed

SMARTOOL man-amplifier for grinding in the hydro electric industry

SMARTclip for high voltage testing in the hydro electric industry

SMARTorch - an advanced welding torch that cuts consumable gases by 50%

Chief Folding Horse - a unique folding saw horse for the consumer market

SMARTTRACK - a track option for the SMARTOOL to increase the work envelope

Products in development

Confidential

WELCLAD INTERNATIONAL INC.

515 Munroe Avenue
Winnipeg, Manitoba
R2K 1H7

Telephone: (204) 667-5060
Facsimile: (204) 667-5062

Bill Fast, President

Major products/services

Manufacturers of Fibreboard products:
Exterior sheathing, natural panels (sound
deadening board), standard and asphalt
impregnated roof insulator, high density roof
board, cant strip, fireclad and firebase.

Desired alliance with other firms

Distributors or brokers:

- (1) Sheathing Materials
- (2) Commercial Roofing Materials

Company history

A Winnipeg-based and Canadian-owned company, part of the Willmar Group of Companies. Servicing Eastern and Western Canada and primarily the Midwest U.S. The manufacturing plant has been operating since the early fifties, servicing fibreboard requirements for residential and commercial buildings.

Technological expertise

Use of many types of recycled fibres.

Coating fibreboard with various finishes for resistance to absorption and fire retardancy.

Products developed

"FIRECLAD" - Fibreboard with a Class 2 (B) surface flame spread rating.

"FIREBASE" - The company has developed a system to adhere a fibreglass/asphalt coated base sheet to fibreboard, eliminating one step for the roofing contractor.

Products in development

Welclad can design a fire retardant fibreboard to customers' needs, i.e. Class 2 (B) and test in their own flame tunnel.

WINPAK LTD.

100 Sauleaux Crescent
Winnipeg, Manitoba
R3J 3T3

Telephone: (204) 889-1015

Facsimile: (204) 832-7781

Mr. J.R. Lavery, President & CEO

Major products/services

Winpak Ltd. manufactures and distributes sophisticated high quality flexible materials for the modified atmosphere packaging market and for other food, pharmaceutical and industrial packaging applications.

The company distributes its products throughout all geographical areas of Canada, the United States, Mexico and the Caribbean. The company maintains an extensive network of sales representatives, independent sales agents and distributors, ensuring customer support and market development in all target areas.

Desired alliance with other firms

Winpak Ltd. has an interest in developing alliances with firms that are capable of assisting in the further development of advanced production processes, by way of equipment or materials used in the manufacture of plastic packaging materials. The company is also in the process of forming vendors-in-partnership programs with both its suppliers and customers to ensure the highest quality of product and services.

Company history

Winpak Ltd. began manufacturing flexible packaging materials in 1977 from its Winnipeg Plant, using proprietary technology obtained from an affiliated company, Wihurl Oy of Helsinki, Finland, who manufacture and distribute packaging materials throughout Europe. In 1988, Winpak Ltd. acquired Flex-On, Inc. located in Senola, Georgia, which has two divisions manufacturing flexible packaging materials.

On a consolidated basis, Winpak Ltd. employs 450 people and ships approximately \$90 million of packaging materials from its three North American manufacturing facilities.

Technological expertise

Winpak's underlying strength has been its total commitment to advanced production technology. This commitment has been enhanced by the relationship established with the packaging division of Wihurl Oy, Finland. Winpak and Wihurl Oy coordinate research and development and share technical developments to ensure technological leadership on a world-wide basis.

Products developed

Winpak specializes in supplying complex plastic structures for various modified atmosphere packaging (MAP) applications. The objective is to extend the shelf life of perishable foods while at the same time maintaining or improving the quality of the product. In addition, one of the company's divisions manufactures a broad range of specialty single-layer polyethylene films.

Products in development

New structures and materials to further extend shelf life, and to improve the retention of original food flavors, for new applications in food, pharmaceutical or industrial market segments, and improved production processes to reduce material requirements thereby ultimately reducing the amount of landfill material.

SOFTWARE INDUSTRY

AH COMPUTER SYSTEMS LTD.

201 - 2621 Portage Avenue
Winnipeg, Manitoba
R3J 0P7

Telephone: (204) 831-1303

Facsimile: (204) 832-6873

Andrew Hallonquist, President

Major products/services

AH Computer Systems develops computer software applications for the business sector. We specialize in the health care administration and wide area network communications on the personal computer platform.

AH Computer Systems also has in development a number of generalized computer applications that will require distribution channels.

Desired alliance with other firms

AH Computer Systems is interested in companies that are currently distributing or retailing computer software for the medical/physiotherapy and chiropractic sectors.

Other companies interested in combining their applications with ours, or vice versa, are of interest to AH Computer Systems. Applications must be compatible with the QNX operating system.

Company history

AH Computer Systems is wholly owned by Canadians, incorporated in 1988. Principals in charge of operations include Andrew Hallonquist (President) and Patrick Binns (Vice-President).

- Sales for fiscal year 1989/90 were in excess of \$300,000. Forecast for 1990/91 are for \$500,000.
- AH Computer Systems currently employs 5 staff, of which two are involved in product development.

Technological expertise

Application development in "C" programming language with the MS-005, NOVELL, QNX and UNIX operating systems. Our development team represents over 30 years of personal computing development expertise.

Products developed

- MEDIX - a patient administration system for doctors, physiotherapists and chiropractors.
- RX Data Perfect - a patient drug prescription system for pharmacists
- Automated Rating Package - software developed to underwrite automobile insurance.

Products in development

AH Computer Systems is in the development of several systems that address wide area network applications and contact management.

CLASS SOFTWARE

39 Groveland Bay
Winnipeg, Manitoba
R3T 5B9

Telephone: (204) 275-6621

Facsimile:

Mr. Ken Penner, President

Major products/services

We produce educational software for consumption at the Kindergarten to Grade 12 level. Our software is designed as an adjunct to teacher instruction - not as a replacement for it.

Our software is produced in several microcomputer environments, including the Apple II, Commodore 64, MSDOS machines.

Desired alliance with other firms

We are interested in an alliance with another firm in which the other firm would allow us to sell its products in the Canadian market, and/or an alliance in which the other firm would be interested in selling our products in another market (outside of Canada).

Another possibility for an alliance would exist if a firm which only develops software would like to see their product marketed to schools in Canada.

Company history

CLASS Software began under the name Manitoba Computer Assisted Learning Consortium in 1973 at the University of Manitoba under the guidance of a professor who was interested in developing educational software. In 1986 it was the recipient of a large grant from the Department of Communications. There followed 3½ years of fast development. However, at the end of the 3 years, funding was not renewed. At this point in time, the company was purchased by K. Penner, and has been operating at the private level ever since.

Technological expertise

We have considerable expertise in the development, design and marketing of educational software within Canadian education institutes.

Products developed

Products we have developed are as follows:

- Geometric Shapes
- I've got Money!
- Logical Shapes
- R "Alpha"
- Spatial Orientation
- What time is it?
- MatchMaker
- Phonetic Fanatic I and
Phonetic Fanatic II
- Tot Logo
- Blood on the Slide!, Boil It!
- Collide It!, Drop It!
- Nourish It!
- Escape from Death Star
- As East As Pie
- Canada, Central America, Oceania,
Asia, Europe, South America
- Facts Canada Junior and Senior
- Facts World, Amnesia, Criminal
Pursuit
- The Sasquatch Report
- Math Class, The Facts Challenge
- Money Matters, House of Illusions
- Adventure on the Bloodvein
- Diary of Back River, Fort Walsh
- The Journey Begins, Survival!
- The Challenge, To the Old Stone Fort
- Up the Creek!

Products in development

At present, we have approximately 10 products in different stages of development.

***E B
SYSTEMS
LIMITED***

313 Carpathia Road
Winnipeg, Manitoba
R3N 1T2

Telephone: (204) 489-7467

Facsimile: (204) 489-7471

Mr. W.E. Evans, President

Major products/services

Consulting, design and systems engineering and project management services associated with:

- General business telecommunications - video, voice, data
- Broadband telecommunications
 - satellite tv
 - cable tv, fibre optics networks
 - microwave television (MMDS/LMMDS)
- Local area networks and microcomputer networks
- wireless LANs and private systems

domestic and international experience

Desired alliance with other firms

Design and project management work for manufacturers and suppliers - domestic and international.

Training and testing of installed systems.

Will take a project from feasibility analysis through installation management to final commissioning and acceptance testing.

Company history

Formed in October 1989 from re-named Bison Communications Limited (incorporated in 1972 by W.E. Evans). Principals (Babbs and Evans) have over 40 years cumulative telecommunications experience in both public (Manitoba Telephone System) and private (cable tv, consulting, engineering) sectors. Heavy experience in cable, satellite and broadband microwave television systems. International consulting started at MTS in early 1980's and continues - Europe, South America, Asia.

Technological expertise

Feasibility analysis and business plans re: telecom systems, design engineering (computer aided), equipment selection and procurement, testing of broadband systems, LANs, satellite TVRO, CATV, microwave radio.

Products developed

While not a manufacturing firm, we were instrumental in development of long haul "feed forward" amplified for CATV trunking and "low power" MMDS system.

Products in development

Working on "wireless metropolitan area network" systems for data and video.

INTEGRATED ENGINEERING SOFTWARE

347 - 435 Ellice Avenue
Winnipeg, Manitoba
R3B 1Y6

Telephone: (204) 942-5636
Facsimile: (204) 944-8010

Dr. Y. Bulent Yildir, President

Major products/services

MAGNETO (2D) and AMPERES (3D) are magnetic field solver software packages, used for designing and analyzing electromagnetic devices and components such as solenoids, AC/DC motors, transformers, recording heads, magnets and charging fixtures, and cater to linear, nonlinear, and permanent magnet materials.

ELECTRO (2D) and COULOMB (3D) are electric field solver software packages, used in the design and analysis of electrical and electronic equipment such as insulators, bushings, grounding electrodes, transmission lines, telecommunication cables and microstrip and integrated circuits.

Extensive technical support includes regular program enhancements, technical support services, workshops and demonstrations, on-site training programs, custom software development and consulting services.

Desired alliance with other firms

Joint marketing efforts for complementary products; overseas distribution channel access.

Company history

Established in 1984, IES is a privately-owned Canadian research and development corporation specializing in the development and marketing of fully integrated, interactive Computer-Aided Engineering (CAE) software for electromagnetic field analysis. IES has ten employees, half of whom are development engineers at the PhD or Masters level. Principals include Dr. Y. Bulent Yildir, PhD, with more than 15 years of advanced technical and administrative expertise, and Mr. Bruce Klimpke, with 10 years of CAE electromagnetic software development.

Technological expertise

All IES programs are based on the Boundary Element Method (BEM), now recognized as one of the most powerful and advanced field solution algorithms available. Programs provide research engineers in both large and small organizations with the means to optimize design, maximize efficiency and reduce costs, allowing for the simulation and testing of a problem on the computer prior to actually building costly prototypes. On an international level, IES software operates at the forefront of the technology.

Products developed

All software is developed by IES technical personnel.

Products in development

Program packages for eddy current analysis in transformers and motors; for wave propagation, transmission and reflection with applications to antenna design and for semiconductor device analysis with applications to chip design.

LINEAR SYSTEMS LTD.

1790 Sargent Avenue
Winnipeg, Manitoba
R3H 0C7

Telephone: (204) 783-2228
Facsimile: (204) 783-0604

Mr. Tom Thorsteinson, President

Major products/services

- Turbodisc
- L-PC Serial/2A
- SCC - 232 Modem pump
- 530 Modem pump
- Quad LPT
- Computer board products for multibus, SBX, PC/AT Computers
- Custom Communication boards, design and manufacturing
- Canlink - HDLC Lap B DOS device driver software

Desired alliance with other firms

Alliance desire to develop future communications products (hardware-software) for ISDN and X.25 products.

Company history

The company was founded in 1979 and is a wholly-owned Canadian company that has experienced steady growth and our products are now used all over Canada, USA and Europe.

Technological expertise

New PC board design development and manufacturing. Synchronous communications products and software.

Products developed

- semi-conductor hard disk for PC/AT bus
- Non-volatile memory products
- Synchronous, multiprotocol serial communication products
- single board computers and industrial I/O boards
- HDLC LAP B DOS software

Products in development

- Multiprotocol synchronous serial-communication products (X.25) and also ISDN.

**LINNET
GRAPHICS
INTERNATIONAL
INC.**

700 - 191 Broadway
Winnipeg, Manitoba
R3C 3P1

Telephone: (204) 957-7566

Facsimile: (204) 957-7568

D.L. MacIntyre, President & CEO

Major products/services

Land related information system (GIS, AM/Fm) consulting, data acquisition and conversion services. The range of services provided includes:

- Strategic Planning
- Analysis/System Design
- System Implementation/Application Development
- Land Base Acquisition
- Data Conversion
- Operations Training

Desired alliance with other firms

LINNET has an interest in developing alliances with firms undertaking projects with a GIS component - for example, environmental impact studies, renewable resource studies, planning studies, irrigation and agriculture development, integration with engineering systems - and with firms considering the development of private sector land information data bases.

Company history

LINNET Graphics International Inc. is a joint venture company established in 1988 by The SNC Group Inc. and I.D. Group Inc. LINNET is headquartered in Winnipeg, Manitoba and has an office in Regina, Saskatchewan. The company was formed to undertake the development of a very large multi-participant land information system, the MLRIS, involving the Province of Manitoba, the City of Winnipeg, Manitoba Hydro, MTS, and Centra Gas. Other contracts for GIS consulting and systems design in the last two years have been undertaken for the City of Winnipeg, Manitoba Hydro, and for CIDA internationally.

Technological expertise

LINNET has a dedicated group of individuals with expertise in geographic information systems, surveying engineering systems, project management, computer assisted drafting systems, cost and benefit analysis, etc. LINNET staff are familiar with and have used all of the major GIS vendor systems and bring over 70 person years of practical, production related experience to bear on GIS projects. LINNET staff are prepared to undertake projects of any scope and will use their skills and experience to provide solutions which recognize the unique requirements of individual clients.

Products developed

Methodologies and software for the conduct of feasibility studies and for system design, land base data acquisition, and data conversion. Resources include most of the major GIS software packages in current commercial use.

Products in development

Research and development focused on land base data acquisition using satellite, digital orthophoto, and GPS technologies and on digital cadastral mapping methods.

**SHL
SYSTEMHOUSE
INC.**

350 - 363 Broadway
Winnipeg, Manitoba
R3C 3N9

Telephone: (204) 944-9166
Facsimile: (204) 943-2765

Mr. Peter Sandiford, President
Mr. Rodney Bryden, CEO

Major products/services

SHL provides comprehensive information technology solutions to large organizations. SHL plans, builds and manages systems.

Desired alliance with other firms

Sub-contract arrangements with hardware and service providers to SHL prime bids.

Company history

SHL was established in 1974 with a staff of 30 people. Systemhouse has grown to become the largest company systems integration company in Canada. We now have a staff of approximately 1,600 of the highest calibre professionals in the business operating in 17 locations in Canada, U.S. and Europe.

Technological expertise

SHL does not develop technology; it applies. The SHL technology was established in 1984 to provide a consistent framework for monitoring technology. The Technology Network also provides the basis for our training programs to introduce new technology to our staff and, by extension to our customers. The Technology Network program establishes areas of priorities, centrally funds research and investigation of selected technologies and facilitates the rapid and accurate transmission of technology assessments throughout the Branch Network.

Products developed

N/A

Products in development

N/A

QUANTIC LABORATORIES INC.

Suite 200
281 McDermot Avenue
Winnipeg, Manitoba
R3B 0S9

Telephone: (204) 943-2552

Facsimile: (204) 957-1158

Dr. Al Wexler, President

Major products/services

Quantic Laboratories Inc. designs and develops computer aided Engineering (CAE) software for the analysis of Printed Circuit Board (PCB) designs. The Greenfield family of software tools uses the highly accurate boundary element and model analysis methods, in conjunction with sparse-matrix techniques, to simulate complex networks including multiconductor coupled transmission-lines.

Company history

Quantic Laboratories Inc. was founded in May 1983, by Dr. Al Wexler. It is a spin-off from Canada's University of Manitoba Numerical methods Research Laboratory a group specializing in the Computational solution of engineering problems, principally in electromagnets. Quantic Laboratories now has 25 employees, with sales office in Fremont, California; Carlsbad, California; Swindon, United Kingdom and distributors in Japan, Korea and the Easter U.S.

Technological expertise

Quantic's R&D engineers and software developers have a diverse range of backgrounds, including Electrical and Mechanical Engineering, Physics, Mathematics, and Computer Science.

Products developed

Greenfield, Quantic's family of CAE software, is a special purpose set of tools for the fast, accurate, and efficient analog simulation of digital circuits with transmission lines. It predicts the electrical effects of high speeds and transmission lines on printed circuit boards, packaging, hybrid and integrated circuits, cables, connectors, and other interconnect media.

BoardScan, Quantic's newest offering, provides powerful, rapid and automated screening capability for identifying critical nets on entire printed circuit boards.

BoardScan and Greenfield are integrated with major CAD tools, including Integraph, Mentor Graphics, Racal-Redac, and Valid Logic.

**T.K.M.
SOFTWARE
LIMITED**

Box 1525, 839 - 18th Street
Brandon, Manitoba
R7A 6N3

Telephone: (204) 727-3873
Facsimile: (204) 727-3338

Daryl Kines, President
Ross Eastley, CEO

Major products/services

TKM has focused solely on the development of library automation software. The software has been developed in accordance with international standards and is appropriate for school libraries, public libraries and special libraries. The software includes the ability to deal with the circulation of items, provides a sophisticated searching system for patrons and it provides a system for cataloguing items in a machine readable (MARC) format.

Desired alliance with other firms

TKM is a Research and Development firm. Other firms could be of assistance in providing distribution channels for the library software products. MicroCAT is designed by a mass marketing approach; BuCAT requires technical assistance (VAX hardware) in the marketing process. MARCsource is a service for the after market environment.

Company history

TKM is a Canadian controlled private corporation. The founding principals of the company consist of Dr. John Tiller, formerly an academic in the Math Computer Science Department at Brandon University; Daryl Kines, Director of Computer Services at Brandon University; Terry Mitchell, a Professional Librarian from Brandon University. The CEO, Ross Eastley, was formerly Vice President (Administration & Finance) of Brandon University.

TKM was formed in 1986; the 1990 sales were \$250,000. The 1990 research and development expenditures were \$125,000. Current markets are throughout Western Canada, with a limited number in the United States and the Middle East.

Technological expertise

TKM has been recognized nationally in Canada as a leading developer of library automation software. The Federal Government has supported two research and development initiatives and TKM has entered into a contract with the National Library to develop software for the Inter-library Loan Process.

Products developed

MicroCAT is a library automation program developed for the micro computer. The software has been developed under SCO Xenix using the language C and ported to DOS. The program has been developed for mass distribution, particularly to the school market.

BuCAT is a library automation program targeted for the mid-size to large libraries. The software has been developed under VMS for the DEC VAX hardware.

MARCsource is a database of MARC (machine readable) records. Libraries can access this database in a batch process or via datapac (online). The database acts as a source of records for cataloguing purposes.

Products in development

Additional modules for MicroCAT such as:

Audio Visual - This module would automate the process of booking and reserving films (A.V. material)

Inter-library Loan - This module is being done under contract with the National Library and would automate the process of doing inter-library loans.

Text Searching - This is a project in the test stage which allows a patron to search the bibliographic data about an item and then if the document is online, the option to search the online text can be selected.

TRANSPORTATION INDUSTRY

**MIDWEST
DETROIT
DIESEL-
ALLISON
LTD.**

1460 Waverley Street
Winnipeg, Manitoba
R3T 0P6

Telephone: (204) 452-8244
Facsimile: (204) 452-2153

Bryan Norrie, P. Eng.
President and CEO

Major products/services

- Detroit Diesel Engine Distributor
- Electro-Motive Diesel Engine Distributor
 - supplier of power systems (Diesel Electric, Marine Propulsion, Mechanical Drive) utilizing the above products as the prime mover
- Manufacturer of custom controls and switchgear utilizing programmable logic controllers

Desired alliance with other firms

Those requiring diesel on-site power (electrical, mechanical or marine) - complete systems.

Those requiring automatic control systems for plant process (mills, mines, manufacturing, etc.).

Company history

Formerly known as Midwest Detroit Diesel Ltd. and Midwest Diesel & Equipment. We have continuously been associated with General Motors Detroit Diesel and Allison Transmission Products for over twenty years, as the authorized distributor. Since 1971 through subsidiary Midwest Power Products, we have been associated with, and are now the sole Canadian authorized distributor for General Motors Electro Motive Diesel Division Products.

Technological expertise

- Builder of diesel generator sets and electric power systems, including all allied and support componentry (controls, switchgear, etc.) to provide a single source of responsibility for the entire package.
- Engineering/design capabilities re above; also for marine propulsion and industrial mechanical diesel power application
- In-house staff profession engineers

Products developed

- Diesel generator sets and associated components
- Marine propulsion packages
- Controls and control programming

Products in development

- Specialized diesel power generation equipment for on site remote location electric power generation
- Railway power generation equipment for passenger commuter train locomotives

T/A
VANGUARD
INDUSTRIES
Geo. D. Simpson
Mfg. Co. (1965) Ltd.

530 Sheppard Street
Winnipeg, Manitoba
R2X 2P8

Telephone: (204) 633-2546
Facsimile: (204) 694-6059

Alex Sommer, President
Don J. Hedley, COO

Major products/services

- F.R.P. Products
- Custom mould design and tooling
- Custom production
- Fibreglass repair
- Production of FRP Boats, 13 Models "Vanguard"
- Production of FRP Truck Caps, 8 Models "Skill-Craft"

Desired alliance with other firms

In the FRP industry or those that sell FRP products that require production and tooling assistance. Preference shown to companies outside Canada.

Company history

In business since 1957, with same family ownership.

One of the first manufacturers of FRP boats in Canada.

Very knowledgeable staff with extensive expertise averaging over 15 years management experience in all phases.

42,000 sq. ft. facility
Approx. 30 employees

Technological expertise

- Design and development of FRP moulds, jigs and production systems, through final assembly
- Use of the more difficult applications of FRP in production

Products developed

- Line of 13 models of boats from 16-21 ft. in length
- Line of 8 models of truck caps to fit most current models of 1/2 ton trucks
- Bus component parts, mobile refrigeration units, satellite dishes, various disposal containers, etc.

Products in development

Various FRP healthcare product